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The MODERN HOSPITAL

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THE MODERN HOSPITAL

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The Significance of the Seemingly Insignificant

By DONALD GUTHRIE, M.D.

Chief of Staff, Robert Packer Hospital, Sayre, Pa.

A GOOD many years' experience in hospital work, first as superintendent, as well as chief surgeon, and later as chief of a clinic performing its work in what might be termed a closed hospital, has convinced me that it is the apparently unimportant things, the insignificant, that are often paramount in the patient's mind. As a rule the patient has full confidence in the hospital's medical service, but strict attention to minor details is important if the patient is to be satisfied and made a loyal supporter of the institution.

To give these minor matters the attention they deserve requires the constant and friendly understanding of the superintendent of the hospital, the directress of nurses and the medical staff. Too often those in positions of authority are more concerned with what, to them, are weighty matters. The superintendent has to keep within his budget and much of his time is spent in devising economies to be reported to his board of trustees. The directress of nurses gives most of her attention to the prescribed curriculum of study which, by the way, has made necessary the overstaffing of our hospitals with nurses and is fundamentally the cause of much of the present unemployment among members of the nursing profession. The medical staff is more concerned with the intriguing morbid pathology the patient may be carrying about with him than with his mental reactions, changed by worry, dread, doubt and fear.

In the same city two types of hospital are often seen. One is the last word in modern construction and equipment, well endowed and managed by a keen, alert, intelligent superintendent who has proved himself an excellent business man and who can keep his daily cost well within the orthodox limits. It has a directress of nurses who is a cultured, intelligent woman and an excellent disciplinarian, teacher and manager. Its medical staff is progressive, enthusiastic and eager to perform the best type of surgical and medical work. Yet there is something wrong with the institution. Its former patients are unenthusiastic, and their experiences in the institution are a closed book. The other type of institution, far less fortunate in material endowments, in construction and equipment, has the following, the support and the kindly feeling of the public. Why is this? Because the institution is animated by a workable and practical psychology and because the importance of insignificant matters is fully appreciated.

My friend, the surgeon, is surprised by my wanting to linger at the entrance when I visit him at his hospital. He is amazed because I ask to see the admission forms. He does not realize

that this delay gives me an opportunity to see a patient admitted, to study the admission clerk and to observe how his particular hospital handles the public. I study the telephone girls and discover whether they have been taught to smile over the wire or whether they are allowed to bark at the public. Much of the spirit of the institution is to be found at the entrance, and it is this spirit that the patient remembers long after his illness is forgotten. The average patient, when he enters the hospital, is fearful, excited, confused, oversensitive and sometimes unreliable in his statements and his relatives are many times in the same state of mind and must be handled with skill and care. Yet how little intelligence many hospitals display in choosing those who must deal with these cases.

The Soul of the Hospital

The doorman is an important member of the hospital group and he should be an astute student of human nature. The telephone service is a problem. Not only should the operator be an alert, well trained girl, but she should be supplied with correct and accurate information about patients by the medical staff, who report daily to her the condition of patients who are critically ill. This information should be sent to her after early morning rounds and every effort should be made to have the information given accurately, as well as promptly.

I ask my host if I may see the ward. He is surprised that I do not want to hurry with him to the operating room, and he is upset because I ask to go to the ward instead of to the private pavilion. It is in the ward that the real soul of the institution, if it has one, may be seen. If the patient can be made to feel that a kindly interest is being taken in his welfare; if he can be waited on promptly by attendants and nurses who have been specially trained; if he can be spared seeing, smelling and hearing things that are objectionable to him; in other words, if he can be admitted to a ward filled with convalescent patients who are happy and free from pain, the chances are his mind will be robbed of most of its fright and he will be made to feel at home at once.

If, on the other hand, he is allowed to sit for a long time without notice or attention, watching those hurry by who have special missions to perform and who are too busy to greet him, he will feel hopelessly alone; or if he is given a bed next to a postoperative patient who is groaning with pain or near one who is in the throes of a gastric lavage, it is not difficult to imagine the state of his mind or to blame him for wanting to go back home again. Fright, fear and timidity are the wrong emotions to instill into his mind at the beginning, if he is to be made a good patient and is to have a comfortable and quick convalescence.

The hospital that is equipped with many recovery rooms, small wards and isolation corridors for the postoperative and the very sick patients or those in delirious states, is indeed fortunate, since the big ward should be made up of the new arrivals and the comfortable convalescents. Operative cases should not be moved out into the ward until the patient is free from pain, no lavages or painful dressings should be done in the ward nor should a death be allowed to occur in the ward.

Nothing gives me more satisfaction or delight than to walk between two rows of happy, smiling, contented patients and receive their friendly greetings. Perhaps I do not pay enough attention to hospital etiquette and ceremony in my work. I have seen rounds made where the chief received the same silent respect that only an army officer could hope to get, where patients were silenced by rigid commands and where nurses were punished for the slightest forgetfulness. I have been in other hospitals where all the convalescents arose and stood at attention at the foot of the beds while the chief was about. There was a tense atmosphere about these wards, and I could imagine I heard sighs of relief when he departed. Singing, music or laughter never upset me when I go into my wards. I do not believe we are obliged to have our patients fear us in order to obtain and hold their respect.

Solving the Problem of the "Kicker"

While on the subject of the ward, just a word about the "kickers." All hospitals have them and we all know how fatal they are to good morale. If a "kicker" is found by a pupil nurse, he should be reported at once to the nurse in charge and his complaint should be investigated. If the complaint is just it should be remedied at once; if there is no foundation for it and the patient is just kicking because it is his nature and he cannot help it, he should be the target of a well organized drive by pupils, nurses in charge, the directress, the intern and the members of the staff, who should try to win him by kind attention. If he cannot be transformed into a good patient, he should be moved from the ward.

The drink of water and the bedpan should receive careful attention. How often we hear, "I lay all night begging for a drink of water," or "I called for a bedpan for one hour, and when I did get it the nurse went away and forgot me." I sometimes wish I could have a drinking fountain beside every bed and enough nurses on night duty to wait on only five patients, each nurse armed with five bedpans. A few minutes' wait in the dark

seems a long time, if the call is urgent and nurses should be trained to wait on these patients promptly and to give them every attention.

Too much care cannot be taken in listing and in looking after the patients' clothing and valuables. How often a patient, who has convalesced from a midnight operation for strangulated hernia or perforated ulcer, really a life-saving measure, forgets all about what has been done for him and flies into a rage over the loss of his hat. Or sometimes parents, after weeks of anxiety during the long convalescence of their son from a ruptured appendix with peritonitis, complain bitterly and perhaps threaten suit because of the loss of a feather pillow that was on the stretcher on which he was transported.

Keeping the Intern Satisfied

After I have listened to their tirades and have been hurt by their ingratitude, I have had the satisfaction to have some of these patients write me after they have arrived home, that, in their hurry to get the train, the hat was left at home or the pillow at the station. But it all emphasizes how important it is to give attention to every detail of the patient's admission to the hospital.

Few patients understand the bacteriologic danger of the fly's foot and not many of them realize what factors flies are in the spread of disease; yet few of them, even the most ignorant, will tolerate the annoyance that flies cause. I am a crank upon the subject, and there are daily crusades against flies in the Robert Packer Hospital before it is time for the staff to appear. Convalescents, special nurses and pupil nurses join willingly and enthusiastically in the swatting orgy which occurs daily throughout our hospital.

Good hospital morale demands loyalty on the part of the nursing force and the medical staff to the chief on duty. Dissatisfaction on the part of the intern is extremely contagious and spreads quickly from the training school to the patients. I believe if we were to give our interns more consideration and attention, if we were to go over our cases more carefully with them and ask them more often for their opinions and suggestion, we could make cheerful co-workers of them instead of dissatisfied critics. They should be taught to receive their patients with every consideration and respect and to care for them tenderly regardless of their walks in life. Their good work should be rewarded by our increasing confidence. The directress should not criticize the chief before the interns or the interns criticize him before the pupil nurses, for pupils soon impart the true state of affairs to the patient.

The nurse should be taught to apply the Golden Rule to her work at all times. She should imagine herself or some member of her family in the condition of the patient she is caring for. She should be warned that if a patient has an unreasonable, impatient nature in health, these characteristics will be greatly exaggerated during a period of suffering, and that she should learn to discount them. She should be shown that a smile wins out and that it will be her best asset if it is properly backed up by a genuine interest in her patients and her work. In caring for those who are suffering, she should give her efforts willingly, promptly and tenderly, and she should never let a patient feel that she is giving aid because she is obligated by the rules to give it.

I do not know of a bigger factor to promote good hospital morale than efficient, loyal, well trained nurses who love their work and who look on it as an art and not as a trade. Their sympathetic care of the patient during his suffering leaves a lasting impression in his mind, and the well chosen suggestions of the nurses during the convalescent period are of great and lasting benefit.

The orderly presents a serious problem. The orderly occupies an important position and he should be paid a much better salary than is paid him by the average hospital. He is an integral member of the hospital family; yet how often has an operative patient been nursed through a grave crisis only to leave the institution embittered by the rough and inhumane treatment of an uncouth orderly.

The Tonic Value of Good Food

We are all familiar with Cannon's work, "The Effect of Emotions Upon Bodily Secretions." We have all seen a convalescence retarded and upset by fear, worry, doubt and anxiety, and we have seen a change for the better in the patient's condition as the mental attitude is changed by suggestion.

Good food, well cooked and served hot and attractively, is a great asset to any hospital. No convalescent should be allowed to go hungry if there is no reason why the diet should be restricted. It is better to apply economy to everything else in the hospital than to the table. The food should be the best that can be bought and there should always be enough. It should be served in dainty, tempting portions, and not in great bulk. A flower on the tray, a delicacy out of season will often please the patient and increase the flow of digestive juices.

The Robert Packer Hospital has always welcomed visits from clergymen, not only because of the comfort these men are able to give to our pa-

tients but because of the distinct benefit that results from their labors. The hospital should respect the religious beliefs of its patients and do everything possible to see that their wishes in regard to religious matters are carried out. I look back upon my experience with the clergy with the greatest possible pleasure, for I have never had anything but the most willing and cheerful cooperation from these men and they have been of untold assistance to me in setting at rest the troubled conscience of many a patient in need of a confessor or a confidant. As soon as his peace of mind is assured, convalescence proceeds rapidly and satisfactorily.

When Rules Are Best Suspended

It is important to have the friends and family of the patient feel that the hospital is anxious to serve them, as well as the patient, in a kindly manner. For this reason all commanding signs such as "Silence," "Walk Gently," "Talk Softly," "Touch Nothing," do more harm than good, for they give the public the wrong impression. There is no warmth in such commands.

During times of great anxiety all visiting rules are best suspended. The families of the very ill should be allowed to stay with the patient, to spend the night if necessary, to be served hot food during the night and to have everything done for their comfort. This is extra work, to be sure, but the hospital loses nothing by such acts of kindness.

The business office should be careful in its treatment of a sorrowing family. I believe it is a wise policy not to settle up affairs immediately after a death, unless the family urges it. It is well to wait for a time before sending statements. This is not good business, I know, but neither is it a bad policy.

Eventually I enter the operating room and again surprise my host by looking at nearly everything in the room, except the incision he has made and the pathology he has found and is trying to explain to me. I am watching the anesthetist, whose position of responsibility is next to that of my surgeon friend. I am observing the operating supervisor, the nurses, the supplies and the technique. Then my gaze turns to the operator. I note with interest how much training each assistant has received and, more important, how much sacred regard each has for the unconscious patient's tissues. At the completion of the operation, I linger long enough in the operating room to observe whether the unconscious form of that patient is lifted from the table and transported back to bed by some crude orderly or by the members of the operating team, a plan I have insisted upon for many years in my hospital.

Concerning anesthetists and the operating room team, it may be emphasized that if anesthetics are given skillfully there will be little fright, little excitement, little nausea or vomiting. The patient will recover quietly, for although the subconscious mind goes to sleep last, it is the first to awaken. A successful anethetist must be a skilled psychologist. The operating room team should be organized along psychological lines since it must handle the patient both before and after the operation is performed.

My host invites me to luncheon and I accept. In the dining room I meet the superintendent, the directress of nurses and the house staff and form an estimation of the hospital family spirit.

Luncheon and a good visit having been completed, I ask my host if I may see the kitchens and the laundry. Here I learn much about the institution that is missed by the casual visitor, since those who are connected in any way with the management of a hospital know that a bad spirit in either of these departments may handicap the institution in the care of its patients.

If our hospitals could be robbed of their cold institutional atmosphere by little touches of human kindness, if the patients were treated more as individuals and less as cases, if management and the nursing force would cooperate better with the staff in planning for the patient's welfare, I am satisfied there would be much less criticism.

Maeterlinck says, "If the bee colony is to survive through the long winter the spirit in the hive must be good." The spirit among the workers in our hospitals must be good if we are to maintain good hospital morale.[1]

A Ship's Hospital That Serves Passengers and Crew

A ship that carries below decks a modern hospital and medical clinic, complete in equipment even to hydrotherapy and dental surgery, and capable of meeting the medical emergencies of 1,500 passengers and crew, is that of the *Empress of Britain*, new 42,500-ton flagship of the Canadian Pacific line.

The laboratory and case record equipment have been installed with the thought of eventually building up enough clinical material for a study of marine complications of such ordinary disorders as are the routine of medical practice among travelers, says a news note in *Hospital Social Service*.

[1]Read at the Hospital Standardization Conference of the American College of Surgeons, New York City, Oct. 12-15.

What the Librarian Can and Should Mean to the Hospital

By PERRIE JONES
Supervisor of Institution Libraries, State of Minnesota

TRADITION has it that the first hospital library in this country was to be found in McLean Hospital, an adjunct to Massachusetts General Hospital, Boston, and that soon this famous old hospital itself instituted the beginnings of its present system. Those beginnings, however, were very different from hospital libraries of to-day.

A few incidents taken from the hospital librarian's case histories will illustrate the therapeutic value of books to the patient.

A Scandinavian minister from Nebraska, between fifty-five and sixty years of age, was a patient in a Minnesota hospital. He was very depressed and did not eat or sleep well; in fact, he did nothing but sit with his head in his hands, in deep despondency, and as a result did not cooperate.

The doctor left word that he was to read, and the librarian went to see him, with her book cart. She was handicapped, as is often the case, in the number and kind of books at her disposal. Taking her cue, however, from the fact that the man was a native of Nebraska and that she had failed to interest him in anything else, she suggested Willa Cather's "My Antonia." This book attracted the patient's attention, as he had gone to school with the author's brother. The librarian did not feel that the content of the book was satisfactory, because of its high emotional quality. However, it was the only thing that got the least response from the man and she left it.

On her next round she found that the choice had been a flat failure. The patient had been disturbed and was even more depressed and more difficult

to reach. The librarian picked up one of Richard Halliburton's youthful, exuberant, objective travel stories and began explaining something about it to the patient. She got no further than mentioning the author's name and the fact that he was just out of college when the patient broke down, sobbing out some of the reasons for his depressed state. His own son, just out of college, and also named Richard, because of the father's illness had been obliged to give up other plans and go to work with a section gang on a railroad in order to earn money to help pay for his father's hospitalization. In his confused state the father regarded this as the ruin of his son's future and felt ashamed and humiliated. Here was, as you can see, a vicious circle.

After this outburst the man felt somewhat relieved and became interested in a book called "Uncle William, the Story of a Shiftless Man," by Jennette Lee. This is a small book with good print, the pages are broken up with conversation and the story is quietly humorous with a good deal of homely philosophy in the conversation of the Cape Cod sea captain who is the principal character. On the librarian's return the floor nurse told her that the patient had taken the book, had read it steadily all the afternoon and the next day had finished it. It was the first effort of this kind he had been able to make. His mind was taken completely off his own worries, and a contact was made with this department of the hospital which was to help in his treatment.

Mental Patients Are Soothed by Reading

On another occasion a girl was brought to a private hospital for mental and nervous diseases in a disturbed state of schizophrenia. For several months she was in no condition to do any reading. Early one morning when the nurse went into her room she found the patient awake and apparently in a normal condition. The nurse called the doctor and the doctor immediately telephoned for the librarian and asked her to bring the patient a book, something that would hold the girl's attention.

It is not always the contents of the book that helps the patient. At a state hospital for the mentally ill there was a Polish woman who read no English and who was not in the habit of going to the library with the rest of the patients of her ward. However, she went with them one day, simply as a relief from the hospital routine. In wandering about the room, she happened to stop and ask the librarian whether they had any Polish books. Fortunately they did, and this little old lady took the Polish book and hugged it as if it had been an old friend, as indeed it was. Her confidence and her cooperation increased with that experience.

The therapeutic value of books is not confined to hospitals. Take the case of the girl of eighteen years who was taking her college entrance examinations. She was on the eve of her last examination and was nervous, exhausted and wrought up to a pitch where sleep seemed out of the question. As she pulled one book after another out of the book shelves, only to cast them aside, her glance fell on "Eight Cousins," by Louisa M. Alcott. This did the trick. She took it to bed with her, and it put her to sleep as satisfactorily as any sedative.

Letting the Patient Help the Librarian

One more incident relates to a woman in a hospital for the mentally ill who was in the habit of receiving permission to go home for certain periods, which were necessarily short as she almost immediately found that she could not adjust herself to living with her family. This woman was a college graduate, a former school teacher, and when it was suggested that she take over the care of the small collection of books in the hospital she seemed pleased and responsive. For a year or more she carried on this work satisfactorily and then asked to go home. It was expected that this visit would be as short as the others, but eight or ten months passed and she did not find it necessary to come back to the institution. The doctor in charge said he felt that her work, which was congenial to her and which gave her a certain amount of responsibility and self-respect, had much to do with her improved condition.

A criticism often heard to-day is that hospitals need humanizing. We all are in danger of becoming so standardized, so engrossed with methods, so mechanized by set routine and so specialized that the mere human being for whom all this trouble supposedly is being taken, all institutions created, is in danger of dropping out of the picture and the means become ends. Because a patient has a bad kidney and has to go to a specialist and be put on a special diet, does it follow that our distressed human being has suddenly become the embodiment of badly functioning kidneys and nothing else?

We must have specialists who will of course divide up the anatomy, each taking over his special domain, above or below the belt, but the patient does not automatically become divided up into so many separate parts. He cannot, unfortunately, wrap up his offending kidney and send it to the hospital, remaining at home until it is ready for him. He must go along with the kidney, and although the rest of his body is normal he is judged a sick kidney and treated as one. However,

he still remains intact, with the permission of the surgeon, and has all the complexities of a many-organed body and, what is more, a mind whose reactions are as important and even more intricate than those of the body.

To help this mind adjust itself and keep in command of the body is of course the function of the hospital librarian and her books. In addition to this, however, she becomes without quite knowing it a sort of liaison between the hospital and the outside world. She must of course know hospital routine and conform to it, recognize its ethics and discipline and cooperate with the medical, nursing and administrative staffs. At the same time, however, she will unconsciously have more of the point of view of the patient, than the rest of the hospital. She is not quite so institutionalized as the other hospital personnel. The patient is quick to recognize this fact, and here lies part of the librarian's value to the hospital.

Gillette State Hospital for Crippled Children, St. Paul, Minn., has provided this attractive library for its patients.

A book is a potent thing. Can it neutralize the patient's fears and build up something helpful instead? That is for the librarian to find out. It would be so simple if we could label a shelf, "Books mild as milk, for patients with stomach ulcers;" or, "Books with absolutely no sugar content, for diabetics;" or, "Bracing books for broken bones." Unfortunately, however, no foolproof lists or rules have yet been discovered to be handed over to the amateur, no matter how much she may be impressed with the possibilities of administering to the sick.

Here is a job that demands all the equipment and resources a person can muster. Is this not a job for someone whose training has included an intensive study of the contents of books? Does it prove a good investment to stock the drug room or the diet kitchen with the best the market affords and then let anyone hand out the sedatives and stimulants, or haphazardly prepare a meal, whether for general or special diets? Is it not obvious that a hospital needs a trained person with a suitable personality to make the library successful? The person in charge of the library not only should be trained in the knowledge of books but her reading should cover a wide range of subjects.

Asa S. Bacon, superintendent, Presbyterian Hospital, Chicago, is making an interesting experiment in which he is allowing hospital librarians to do apprentice work at the hospital. His requirements for these apprentices are that they shall be college graduates and shall have one year of library training, and that while they are at his hospital they shall take certain courses in hospital ethics, mental hygiene and similar subjects.

Another point in this ideal program, one that needs to an even greater degree the cooperation of the hospital, is that while really effective service hinges on the right book, to know what is the

right book we must know the patient. How can we know the patient unless we have the help of the nurse in charge and of the doctor and a great deal of time to study the case? We can't. And as far as I know no careful observation is ever made of a patient's reading and no record is made regarding it. It has not been made even in the few well endowed private hospitals that have whole-time librarians on their staff. It is a piece of work that cries out to be done, work that would for the first time set a goal towards which hospital librarians could aim, that would show definitely what could and should be done. Mr. Bacon hinted at this when he said, "With the record of the patient's reading—type, quality and effect—included as part of the case history, library service is placed upon the same basis as the other professional departments of the hospital."

Public libraries will never be the leaders in this intensive method of work; they may accede to it if its importance is pointed out to them by hospital authorities, but they will not feel that they can afford to initiate it. The hospital must present its case and must arrange some basis whereby it would assume part of the financial responsibility.

In Minnesota, most of the hospital library work except in state hospitals is done by the public libraries, as is fitting, since patients are often taxpayers and should have the benefit of tax supported institutions. Must we look elsewhere for this pioneer laboratory work to be done?

How the County Library Can Help

I have spoken so far of things as they might be, as we should like to see them. A few words now about things as they are. Possibly less than a half-dozen cities in Minnesota, and the same is true of other states, feel that the size of their hospitals and libraries warrants a hospital department as part of free public library service. What can be done for the rest? Why not enlist the county library system, which is to-day one of the coming movements in library organization and reorganization, and make it work for the hospitals? In rural and agricultural communities the county rather than the several small towns within the county to-day is felt to be the more satisfactory unit for the support of such institutions as libraries. One well manned county library, in the county seat serving rural and town population alike, with smaller collections or with a book truck can meet the demands better than several poorly equipped town and village libraries. Service for all hospitals in the county from such a unit is not only possible but feasible.

If the hospital will get in touch with the county librarian, present its case, emphasize the rights of taxpayers, even though they are sick and in the hospital, ask for personal supervision of the program, press for a close understanding of the needs and problems, I believe the results will be satisfactory.[1]

How Veterans' Bureau Hospital Sites Are Selected

President Hoover will continue his policy of accepting the recommendations of the Federal Board of Hospitalization in the matter of the selection of sites for veterans' hospitals throughout the country and will not in any way interfere with the board's functions in the selection of such sites.

This statement was made at the White House on behalf of the President in connection with current published reports to the effect that he is being urged to designate sites for veterans' hospitals in various parts of the country under authorization granted by Congress at its last session.

Sites for veterans' hospitals are selected strictly on their merits after most careful consideration first by the engineers of the Veterans' Bureau and by the Federal Board of Hospitalization. This board is made up of the surgeons general of the Public Health Service, the Army and the Navy, the superintendent of the Government Hospital for the Insane, General Wood, former president of the National Volunteer Homes, Colonel Ijams of the Veterans' Bureau, the solicitor general and Brigadier General Frank E. Hines, administrator of Veterans' Affairs, chairman.

The procedure is for the board to indicate where a hospital is to be located in a given area or state. Then the engineers of the Veterans' Bureau study the proposed sites within that given area or state and report to the board. The board studies these suggested sites and makes the actual recommendations of the site to be selected. Then its recommendation is sent to the director of the Bureau of the Budget who transmits it to the President. No action is taken until the President's approval is received, but he has consistently followed the recommendations of the board and it is his intention to do so in the future.

The bill passed at the last session of Congress contemplates the construction of about fifty hospitals involving an expenditure of about $21,000,000. It provides for nine new units, three of which are new soldiers' homes and six hospitals. Other construction provided for includes additions to existing plants.

[1]Read at a meeting of the Minnesota Hospital Association, Lutsen, Minn., June 23, 1931.

The Modern Hospital

A Paper From the American Hospital Association Meeting

By WINFORD H. SMITH, M.D.
Director, Johns Hopkins Hospital, Baltimore

THIS meeting is held under the title of Trustees Section. In preparing for this meeting, I asked myself: What shall I say? How many trustees will be in the audience? How many trustees will read the published report? Shall I attempt to define for trustees their duties, and to point out wherein they sometimes fail?

It seemed to me that since comparatively few trustees attend these meetings, and since most trustees have their own conception of their job and would have little interest in the advice of others in respect to it, and sometimes have no interest except to see their names appear as members of another board; to attempt to show this important group what they should or should not do would be a waste of time, and, in a sense, would be "carrying coals to Newcastle."

Since trustees are ultimately responsible for everything in and concerning the hospital, I concluded that a discussion of some of the problems and tendencies of the modern hospital would be the more desirable procedure. I shall proceed on that line. I would like to say at this time that much of what I shall say I have already said at the last meeting of the American College of Physicians.

What It Costs to Run Our Hospitals

In the aggregate, the operation of the hospitals of the United States falls in the class of big business. With less than 1,000 hospitals fifty years ago, we now have 7,000 hospitals in the United States. The value[1] of the hospital plants is about three billion dollars. The annual cost of maintenance is about $900,000,000. The amount spent for new construction each year is $200,000,000. The hospitals provide over 900,000 beds, in which every day there are over 700,000 patients. There are over 650,000 persons[2] employed in operating hospitals, not including doctors and nurses. These hospitals treat about 12,000,000 patients each year. Further elaboration is unnecessary before this audience. I ask you to keep this picture in mind, however, with reference to topics which I shall discuss later.

Time would not permit a full discussion of all phases of the subject. I shall confine myself, therefore, to a discussion of some mooted questions. That there are such questions you well know. One has only to think of the numerous articles by both medical and lay writers that have appeared in magazines and daily papers during the past few years to be convinced, not only that there are questions requiring answers, but that there exist both general interest in and general lack of accurate information concerning most points under discussion. These articles deal with the cost of hospital service, doctors' fees, nurses' fees, the amount of free work done both by hospitals and doctors; in fact, they constitute a general discussion of the cost of medical care.

Why Doctors Criticize Hospitals

Doctors criticize (a) the cost of hospital service, particularly to private patients; (b) the cost of nursing service; (c) the amount of out-patient service; (d) the creation of diagnostic clinics; (e) the lack of accommodations for patients of moderate means and (f) the closed staff organization.

The question of costs will be discussed later. With reference to out-patient service, there is no doubt that this phase of work has been much extended in recent years. There are now 5,000 dispensaries for poor persons. These have been established to meet a real need in the communities served and have in most instances been sanctioned if not recommended by the staff members of medical boards of the hospitals. Rarely have such enterprises been undertaken by trustees or hospital managers independently of the staff. Can anyone doubt the need of such services? Not if one were familiar with the type and the large number of patients flocking to the dispensaries.

Much has been said about dispensary abuse by patients. Repeated investigations have shown that such abuse is at a minimum, rarely, if ever, over 2 per cent. This would seem very low, probably no greater than the abuse of doctors' private

[1]Rorem, Rufus C., The Public's Investment in Hospitals, published by the Committee on the Cost of Medical Care.

[2]Peebles, Allon, Publication of the Committee on the Cost of Medical Care.

offices. On the other hand, the hospital is criticized, if its officers attempt to check carefully the claims of the patient for free treatment or treatment at a low fee and if patients are admitted free. The same criticism applies to the admission of in-patients. In other words, the hospital is damned both ways. I believe it not only right but desirable that patients should be made to pay something, if possible. To make it too easy to obtain free treatment would be bad from every point of view, both for the patient and the doctor. Furthermore, comparatively few persons will choose a dispensary service except for the sole reason that they cannot afford other service.

Patients are often admitted to dispensaries who pay a fee equal to that charged in some private offices. This is criticized. This does not occur often enough to offer any real competition and in most instances, this initial fee is seldom repeated, although the patient returns repeatedly for further treatment. It would be unsound practice to send such a patient away only to return later for continued treatment. There are many faults in our system, but they are not confined alone to the hospital or dispensary.

Should Physicians Give Free Service?

Recently articles have appeared berating the system which depends upon the gratuitous service of physicians. One writer suggested that physicians might organize and refuse to serve on the staff of any hospital or dispensary unless paid. I am sure that such a suggestion would be condemned promptly by the profession as unwarrantable and foolish. Certainly it would be condemned by all who gave serious consideration to our system of hospitalization and its support. It is undoubtedly asking a great deal of busy doctors to expect them to give their services to the operation of dispensaries. On the other hand, many physicians have found it instructive and helpful in building up their experience which, particularly to the young man and the internist, is his greatest asset. The same is true to an even greater degree of the service rendered in the care of patients in the public wards of hospitals. Under the present system, the man who obtains a staff appointment, which calls for some of his time in caring for ward patients, receives quite as much as he gives; except, perhaps, those who have long since become well established and no longer need the hospital service for the experience and the prestige that such a connection undoubtedly gives. It is obvious that until a more stable basis of hospital support is found, hospitals will not be able to pay physicians for services to the poor in the public wards and dispensaries.

The development of diagnostic clinics for patients of moderate means is not at present a great menace to medical practitioners, but it may be a factor of considerable importance in the future unless the medical profession finds some other way of satisfying public demand. Undoubtedly, in the present era of specialization, persons of moderate means feel that they simply cannot face the bill, resulting from being referred from one specialist to another. As a consequence some other system must be devised. Perhaps more well trained general practitioners will be the answer, perhaps group practice, as advocated by many. If the latter system is chosen, it must be on a basis of an inclusive fee, not separate fees of individual men merely grouped together for convenience and for cutting down overhead. In any event, unless the medical profession finds the solution, the hospital, the state, the public health administrator or the public will attempt to solve it. Probably the cooperation of all these agents will be required to solve the problem.

That hospitals have, in the past, paid too little attention to the provision of accommodations for patients of moderate means is undoubtedly true. Such is likely to happen in the rapid expansion of any system, particularly if as rapid and as haphazard as that of hospital development in the United States. We concentrated first on the care of the poor; next came the provision of accommodations for the well-to-do. The reasons are obvious.

Why Campaigns Are Often Criticized

It was necessary to provide for the poor because in no other way could they obtain proper care. The development of more complicated methods of diagnosis and treatment, and particularly the developments of surgery, made it desirable to provide at least the same opportunities of service for those who could pay as for those who could not. Furthermore, it has been the theory that by carrying a goodly number of private patients who could pay well for their accommodations, the overhead would be so distributed as to make it possible to render service to a larger number of poor persons. In more recent years it must be admitted that in many hospital developments perhaps undue attention has been given to the private patient class, particularly where those developments have been financed by general public subscription.

Here it must be admitted that perhaps doctors have a right to criticize, because it has not infrequently happened that the public probably provided the funds under some misconception. It has been universal practice in campaigns for funds to emphasize the service to be rendered to the community, implying, at least, service to the poor

and unfortunate. In reality, such movements have often resulted in the building of hospitals from funds raised by popular subscription which were very largely for private patients and for the benefit of a comparatively small group of doctors. Those doctors on the outside have had ground for criticism. Had the campaign literature or pronouncements stated frankly that so many beds would be provided; that most of them, the exact number being stated, would be for private patients; that only staff members would have the privileges, their names being given, no criticism would have been justified. But such campaigns have seldom been run on such straightforward and businesslike lines.

This is a matter of vital importance to hospitals. Public confidence is essential to the whole hospital movement.

The Problem of the Middle Class Patient

In recent years more attention has been paid to the patients of moderate means. Hospitals are now attempting to provide this class with suitable accommodations at rates within their means. That this service has been lagging is not alone the fault of hospital trustees and administrators. But some questions remain to be answered. Can such accommodations be provided at rates that will make the service self-supporting or must such a service be endowed?

In large urban centers, where fireproof construction is demanded and where the most complex type of medical and surgical service is demanded, this question has not yet been answered satisfactorily. Boards of trustees are often faced with the situation that funds at their disposal have been given for charitable purposes and may not be used for this purpose. Therefore, unless the hospitals are self-supporting, endowment funds must be obtained. If a building is required, that means additional funds for that purpose.

The Massachusetts General Hospital, Boston, has embarked in this field in a manner which should shed much light on the subject. It is important to know that the authorities of this institution decided, after careful consideration, that a building accommodating 300 patients represented the right size of unit to offer a chance of operation on a self-supporting basis. An initial gift of $1,000,000 was supplemented by other funds, bringing the total to about $2,000,000 for the building. One of the large foundations promised $150,000 to help offset any deficit for the first three years of operation.* The prices range from $4.50 a day for a bed in a nine-bed ward to $6.50 a day in single rooms. There are extras for operating room, x-ray, laboratory fee, etc. This unit, known as the Baker Memorial, has been open a few months over a year and definite information should soon be available as to the success of the venture. It is significant that the authorities stated publicly that such an undertaking could not succeed without the cooperation of the medical staff, the members of which agreed in advance to limit their fees to the patients in this building. The point I wish to make is that a large sum of money was given to erect the building. If it were necessary to pay interest on the investment and to amortize this expenditure, the cost of operation would be proportionately higher.

The closed staff is also criticized, by doctors particularly. It is believed by many that a carefully selected staff, members being chosen because of demonstrated ability and a capacity to work in harmony with others, will result in a more workable unit, with the maximum of standardization in all procedures, and will result in better care of patients and more economical operation. I believe this has been demonstrated to be true. There can be no argument on the point that all doctors are not of equal ability. Not all members of a closed staff are of equal ability, but if the principle is sound and its application is made solely on the ground of ability, then that staff should be composed of men competent for the work assigned to them, supplementing each other and forming the best type of a working organization.

Closed or Open Staff?

The trustees must be satisfied that members of the staff are competent and responsible, because in many states charitable hospitals are not liable for damages provided the governing boards have exercised due care in the selection of their officers and employees. It is amazing, however, how gullible trustees are when it comes to selecting members of their staff. It is also a fact that if poor work is done or glaring mistakes are made by a doctor in treating a patient in a hospital, the reputation of the institution suffers quite as much as that of the doctor concerned.

The point has been made that all public or community hospitals should be open to any reputable physician or surgeon in that community, the argument being that only in this way will the general level of practice be kept on a high plane. That this is true is yet to be demonstrated. On the other hand, I believe that if such a system were followed, those hospitals would not be as efficient in operation, or as productive in developing outstanding men, or in clinical and laboratory investigation, as under the restricted staff type of organization. Human nature is such that no matter what organization is adopted, even if all

doctors were accorded hospital privileges, a considerable number, because of personal characteristics, insufficient background or general incapacity, would always remain in the rut of mediocrity. In any event, the welfare of the patient is the first consideration.

Public Needs to Be Kept Informed

We must admit that the public at large has a definite interest, often a vested interest, in the welfare of hospitals. Yet the public is not well informed and, in consequence, is unduly critical. It is perhaps our fault that the public is not better informed. Some of the misinformation or lack of information is due to the manner in which appeals for funds are made, a point I have already touched upon. Then, the public's advisers, as represented by the medical profession, are not always well informed because they are too busy to give careful thought to the subject and sometimes these same advisers are too ready to agree with the public. It is always open season for hospitals. It seems to me a very shortsighted policy on the part of physicians, to criticize, as so often happens, without any constructive effort, those institutions that mean so much to the profession by way of the opportunities provided for their convenience and that are absolutely essential for much of their work. These men with hospital privileges are provided, and without cost to them, with more facilities than are provided for any other professional group.

The public is critical of the cost of operation, resulting in numerous appeals for funds and high charges to patients, and because patients are sometimes turned away. The last point is often played up by newspapers. It should be obvious that a hospital, like any other building, has limited capacity, and even an urgent case must at times be referred elsewhere. Furthermore, why should a hospital be expected to do more than its finances permit? In this period of unemployment, hospitals have been hit hard because of the increased number of patients unable to pay. For the most part, they have assumed the extra burden without assurance of additional funds. It is expected that hospitals will do this humane work. Are hotels expected to feed the hungry, do railroads and street cars transport the poor and unemployed free of charge and do stores supply the necessities of life to these people without cost? Certainly not; no one expects it. But hospitals are expected to assume the burden on the theory that the public supports them. All would be fine if this were true.

We note in the press that many millions of dollars are to be raised to meet the distress due to unemployment this coming winter. Will there be any disposition to allocate any of this money to pay for hospital care? I doubt it. Yet why not?

Industry flatters itself that it cuts its suit according to the cloth. Production is curtailed to suit demand. Unemployment results. The greater the unemployment problem over a prolonged period, the more sickness there is. It always follows. That means then that with the decrease in the volume of other business and the curtailment of business expense, the greater the volume of hospital business with a smaller financial return. Why should the hospitals be expected to assume this additional burden without assistance in order that the budgets of commercial enterprises should balance? Trustees, here is an opportunity for you.

At a recent meeting of university presidents where the fundamentalist-modernist controversy was raging, one president asked another: "Do you believe in hell?" He replied: "Why shouldn't I? I am just launching a medical school at my university." Had that question been addressed to a hospital executive he might have replied, "Why shouldn't I? I am trying to balance my budget!" Trying to reconcile the demands of the public, of trustees, of staff, of schools of nursing, of auxiliary boards, of politicians and other groups, would justify his reply.

(To Be Continued)

Tuberculosis Clinic in New York Serves Water Front District

The tuberculosis clinic which opened at Broad Street Hospital early in August, is the third of the New York City Department of Health tuberculosis clinics inaugurated in direct conjunction with an established hospital, Presbyterian Hospital and Polyclinic Hospital having had similar clinics for the last several years.

In announcing the opening of the clinic, Richard Mackenzie, managing director, Broad Street Hospital, stated the purposes of the clinic as follows: "We seek first," he said, "to offer to the water front district of New York the benefits of complete diagnosis. As a hospital, our allied services, surgical, medical, pediatric, nasal and otological are at the disposal of a large group of people. With diagnosis established, we are equipped to render patients the imperative care, with proper segregation, of course, necessary during transfer to the proper sanitoriums.

Dr. James E. Edlin will be in charge of the clinic. Doctor Edlin is physician-in-chief of Chelsea Clinic, Polyclinic Medical School and Hospital, New York City.

Modern Business Devices That Are Adapted to Hospital Use

By O. N. AUER
Formerly Assistant Superintendent, and
H. W. SEEKMAN
Assistant Superintendent, Michael Reese Hospital, Chicago

THE admitting and information departments of a hospital are usually its first points of contact with a patient, his relatives or friends. First impressions are frequently quite lasting and it behooves all hospitals to give considerable attention to the conduct of these departments. It is, of course, necessary that the personnel be courteous, well trained and interested and that they have proper equipment with which to work.

A survey was made at Michael Reese Hospital, Chicago, of the admitting procedure and the method of giving information to relatives and friends during the hospital stay. As a result of this investigation some marked changes in the methods and equipment have been inaugurated.

To appreciate more fully the merits of the changes made in the admitting procedure it is necessary to outline the major points of the old system. When a patient sought admission to the hospital the admitting clerk prepared a perforated, three-part form (Fig. 1) in duplicate which, when it was completed and distributed to the proper persons, supplied them with the varying types of

A rotary rack for cards facilitates the handling of inquiries at the information desk.

MICHAEL REESE HOSPITAL
Application for Admission

Adm. No. B Date_____ 19____
Service_____ A. M. / P. M.
Name_____
Address_____
Nearest Relative_____ Telephone No.
Address_____
Other Rel. or Friend_____ Telephone No.
Address_____
Nativity_____ Age_____ Single / Married_____ Widowed / Divorced
Occupation_____ Religion_____
Admitted to P.R. / P.W. / G.W. No. _____ Rate_____
Referred to Hospital by Dr. _____

Bill to Room Mail to
Name_____
Care of_____
Business Address_____
Business Phone_____ Home Phone_____

MICHAEL REESE HOSPITAL
Charge Ticket

Adm. No. B_____ P.R. / P.W. No._____ / G.W.
Date_____ 19____
Name_____
Address_____
Service_____ CHARGES
Per Week $_____
Nursing Service $_____
Maternity Oper. Room Charges $_____

Bill to Mail to
Name_____
Address_____

MICHAEL REESE HOSPITAL
Notification of New Admission

Adm. No.:_____
Date_____ 19____ A. M. / P. M.
Patient's Name_____
P.R. / P.W. / G.W._____
Attending Physician_____ M. D.
Interne_____ M. D.
Attending Notified_____
Interne Notified_____
313A—MU

information they required. For purposes of identification the three parts of the original form will be designated as A, B and C, and of the duplicate, as A1, B1 and C1, and their uses, as follows:

Form A: (1) to the statistician for the compilation of the admission and discharge book, patients' register and superintendent's diary; (2) to the bookkeeper's office for the preparation of the patient's ledger account; (3) to the nursing supervisor in charge of the general ward admitting department for her record of admissions.

Form A1: to the two information clerks, one in the main building of the hospital and the other in Meyer House, for the preparation of index cards and visitors' passes. Both of these clerks need complete information concerning all patients in the hospital.

Form B: to the accounts receivable bookkeeper, as a posting medium for the first week's room charge.

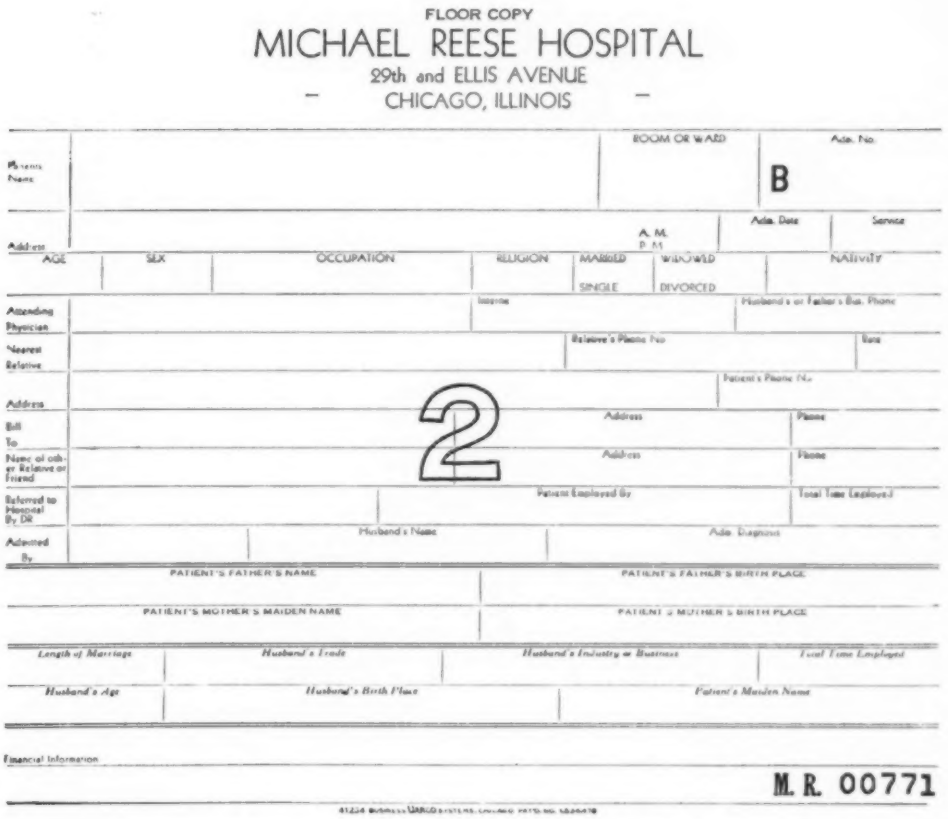
Form B1: to the accounts receivable bookkeeper, as a posting medium for room charges after the first week.

Form C: to the information clerk, for the notification of the patient's physician, which was then placed in his mail box as a confirmation.

Form C1: to the chief telephone operator, for the notification of the intern. The form was then placed in his mail box as a confirmation.

In addition to these forms the admitting clerk prepared the patient's admission card which was used by the patient as evidence of his admission to the hospital and delivered to the nurse in the division to which he was assigned. The survey of the admitting procedure and the uses of the forms brought out several defects. Strictly speaking, the patient should not have been taken to his room until the forms described had been completely prepared. This was not followed in practice, however. When the admitting clerk found several patients waiting to be admitted he filled out Forms A and A1, and the patient's admission card and sent the patient to his room, laying the unfinished forms on one side while he proceeded similarly with the next patient. The completion of these forms and their distribution were delayed until the rush had subsided. The following list indicates the repetition of entries and the possibility of error

Fig. 1. Three-part perforated application form formerly used at Michael Recse Hospital. The first part of the form went to the statistician; the second part, to the accounts receivable bookkeeper, and the third, to the information clerk. This method involved a repetition of entries that was inconsistent with modern business methods.


FLOOR COPY

MICHAEL REESE HOSPITAL

29th and ELLIS AVENUE

CHICAGO, ILLINOIS

ROOM OR WARD

Adm. No.

B

Adm. Date

Service

A.M. P.M.

AGE | SEX | OCCUPATION | RELIGION | MARRIED SINGLE | WIDOWED DIVORCED | NATIVITY

Attending Physician

Income

Husband's or Father's Bus. Phone

Nearest Relative

Relative's Phone No.

Rate

Address

Patient's Phone No.

Bill To

Address

Phone

Name of other Relative or Friend

Address

Phone

Referred to Hospital By, DR

Patient Employed By

Total Time Employed

Admitted By

Husband's Name

Adm. Diagnosis

PATIENT'S FATHER'S NAME

PATIENT'S FATHER'S BIRTH PLACE

PATIENT'S MOTHER'S MAIDEN NAME

PATIENT'S MOTHER'S BIRTH PLACE

Length of Marriage | Husband's Trade | Husband's Industry or Business | Total Time Employed

Husband's Age | Husband's Birth Place | Patient's Maiden Name

Financial Information

M.R. 00771

Fig. 2. Here we see the simplified form of application now in use. Several duplicate copies are made at the same time on a machine especially designed for this purpose. This simple admitting procedure eliminates the delay in providing adequate information that was formerly so objectionable.

involved in the preparation of the forms mentioned.

Data	*Times Written*
Name of patient	9
Room number or ward	9
Date of admission	8
Admission number	8
Address of patient	6
Telephone number of patient	5
Name of nearest relative	5
Telephone number of nearest relative	5
Service to which admitted	5
Attending physician	5
Rate, room or ward	4
Address of nearest relative	3
Name and address of person to receive bill if other than patient or nearest relative	3

It is apparent that the admission of a patient involved a repetition of entries of original information in a manner that was inconsistent with modern business methods.

The survey also disclosed the following difficulties arising from the manner of their use: (1) The number of persons using the forms greatly increased the possibility of loss, particularly of Forms A and A1; (2) the necessity of transcribing longhand information from one form to another resulted in frequent inaccuracies and a duplication of effort; (3) the admission forms were not serially numbered, which prevented the auditor from knowing whether an account was set up for each admission; (4) there was no certainty that all necessary forms were prepared at the time of admission.

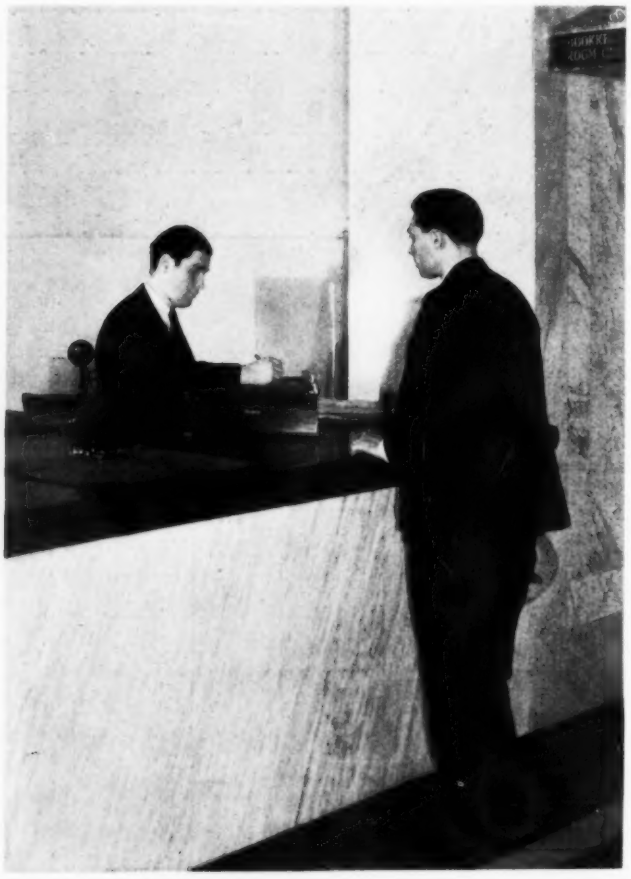
In order to avoid these difficulties modern equipment was installed and improved methods were inaugurated. A new form was drawn up for the use of the admitting clerk. This is shown in Fig. 2. This is a continuous form, serially numbered, which is loaded into a register, several types of which are available. Four copies are prepared with one writing, and when they are taken from the machine, the next set of forms is automatically brought into position for the succeeding admission. If this form is properly filled out it contains all the registration information the hospital requires, including the data necessary for birth and death certificates. This completes the room clerk's part of the admission. The numbering of these forms makes it possible to be absolutely sure that an account will be opened and all other forms prepared for every admission.

The four copies are distributed as follows: (1) One is taken with the patient to the division to which he is assigned as evidence of his admission; (2) one is sent to the clerk responsible for the issuance of all other forms; (3) one is retained by the admitting clerk for reference purposes; (4) one is made for the social service department.

The uses of these forms are apparent with the exception of No. 2. In order to avoid the former

duplication of effort, one person was made responsible for the issuance of all other forms and given the proper working equipment. A special flat writing typewriter was purchased which has exceptional manifolding power and is adapted for the use of continuous forms. It eliminates the preliminary steps of picking up loose sheets, inserting carbon paper and jogging copies preparatory to writing. The forms are automatically brought forward into writing position with the carbon paper inserted. They are in rolls under the machine and are in perfect printed alignment.

Within five minutes after the operator has received the original admission blank from the admitting clerk she will have prepared the following forms: patient's ledger account; information slip for the Michael Reese information clerk; duplicate for the Meyer House information clerk (the information slips are ready to insert in the



Visitors at the bookkeeper's desk are served quickly and efficiently.

information racks, to be described later, and do not require copying); notification slip for the attending physician; duplicate for the intern; statistician's copy (the statistician is the regular night clerk with other duties); bookkeeper's copy; the patient's admission card.

These forms serve the same purpose and are more or less similar to those used in the old admitting procedure, the preparation of which required a repetition of entries that are now prepared with one writing. The items on the new admission form (Fig. 2) are in the same sequence as those in the forms listed above.

The operator immediately distributes the copies for the information clerks, the attending physician and the intern. The notifications for the attending physician and the intern are delivered to the chief telephone operator who reaches those individuals by telephone and then places the typewritten slips in their respective mail boxes. The remaining forms are accumulated and distributed at the end of the day to the proper personnel.

The operator is not an additional employee. By rearranging the work of the clerk who handles all the repair requisitions and some other miscellaneous duties, time was found for her to handle this work also.

A study was made of the process of giving information in the same manner as the study of the admitting procedure.

The equipment in use which was found to be inefficient consisted of (1) an alphabetical card index file containing information about patients, (2) condition sheets, one for each of fifteen divisions, and (3) an alphabetical file for visitors' passes.

Disadvantages of the Old Method

There were several periods throughout each day when the clerk could not find the card, give the desired information and return the card to its place rapidly enough to avoid congestion of visitors at the desk and waiting telephone calls on the switchboard. In order to give information concerning a patient's condition, the clerk first consulted the card index file to ascertain the location of the patient and then referred to one of the fifteen condition sheets before she was able to answer the inquiry.

A request for a visitor's pass necessitated a search through the alphabetical file. A large number of passes were taken out by visitors and not returned to the information desk at the termination of the visit. There was no satisfactory method of knowing whether or not passes for each patient were prepared and in their proper places before visiting periods and it was necessary to take time while the visitor waited to issue new passes to duplicate those not returned.

The major difficulties were as follows: The equipment was obsolete; the time required to answer an inquiry was unnecessarily long; the incoming telephone trunk lines were tied up; the community was unfavorably impressed with the

information service; the issuance of visiting passes was unnecessarily slow.

The first step necessary to remedy these defects was to provide the information clerk with modern equipment. A visible information rack of the rotary type, which has been adopted by many hotels and hospitals as standard equipment, was purchased. This rack holds fifteen distinct frames in a cylindrical design and each frame is grooved to receive removable aluminum pockets.

The advantages of this information rack in conjunction with the forms issued by the operator are: legibility of information; the information slips are of a size to fit the removable aluminum pockets; the pockets with slips inserted are easily placed in the rack in alphabetical arrangement; the name of the patient is always visible; the slips contain all needed information; the rapidity and efficiency of use are far in excess of the old card index file system; the condition of the patient is indicated by colored flags in the pockets.

How the New Equipment Is Used

The cumbersome procedure formerly involved in the giving of condition information concerning a patient has been outlined. By the use of this rack the clerk merely glances at the information slip which is always visible and alphabetically arranged. She is immediately informed of the patient's condition by the color of the flag which has been inserted in the aluminum pocket with the information slip.

In this hospital, as well as in many others, the medical staff has requested that the visitors in private wards be limited to two at a time for each patient. In order that a visitor may receive a pass without delay another piece of equipment was installed. This is a rack on a pedestal stand similar to the information rack except that it has fixed instead of removable pockets, one pocket being provided for each private bed and numbered accordingly. Each pocket is provided with a permanent card on which are printed the words, "Vacant" and "Occupied." When a bed is unoccupied the word, "Vacant," is exposed. At the time of the admission of a new patient, the information clerk receives, among other forms, visiting passes that have been prepared by the operator. She removes the "Vacant—Occupied" card from its pocket, writes the name of the new patient on the back of the card and returns it to the pocket, exposing the word, "Occupied." The passes are then inserted in front of this card in the same pocket. The passes are so designed that the name of the patient and his room number are visible.

Visitors are requested to return the passes to the information desk at the termination of their visit. This request is not always complied with, however, and the "Vacant—Occupied" card was installed in order that this omission would be discovered before the next visiting period. Before each visiting period it is the responsibility of the information clerk to check her pass rack to see that passes are in their proper places for each patient in the hospital. If the passes have not been returned she is informed of this fact by seeing the word, "Occupied," exposed on the permanent card in the pocket. She then refers to the card, obtains the name of the patient occupying the bed and issues new passes accordingly.

A special flat writing typewriter with exceptional manifolding power is used for making the continuous forms.

This installation has resulted in two distinct advantages—the information clerk is never at a loss to know whether or not passes have been issued for a particular patient for that visiting period, and she is enabled to control the number of visitors per patient at one time.

An analysis of the complete installation indicates that the following points should be emphasized:

The patient is detained a minimum length of time at the admitting clerk's desk.

All hospital forms and records are prepared with one writing by one person without delay.

The serial numbering of the original admission blank ensures against loss before the forms and records are prepared.

The information regarding a patient is consistent, complete, legible and readily accessible.

Modern business devices adapted to hospital use have made these improvements possible.

Planning the Surgical Facilities

By S. S. GOLDWATER, M.D.
Hospital Consultant, New York City

THE architect who undertakes to plan a hospital for the first time and who turns to the literature for guidance, finds at his disposal hundreds of descriptions of individual hospitals and a limited number of textbooks from which many useful hints can be obtained. It is no reflection upon the knowledge or ability of the authors of these books to say that, as a rule, the available texts offer little more than an introduction to the subject of hospital planning, for so great is the complexity of the modern hospital that a complete analysis of its structure and function is a laborious task to be accomplished only by years of concentrated effort, while most of the current textbooks have perforce been written during odd hours snatched from busy and useful professional lives. It seems desirable, therefore, to supplement by voluminous notes the necessarily slender material that the textbooks offer on the details of structure and arrangement.

Approaching the subject of hospital planning with due regard for its extent and its complexity, I began several years ago the publication of a series of comprehensive reference lists dealing with special phases of hospital planning and construction. Three studies of this kind were in successive years presented to and adopted as official documents by the committee on construction of the American Hospital Association; these studies were devoted, respectively, to ward planning, to planning for private patients and to the planning of nurses' homes.

The list which is printed here relates to the operating room and its auxiliary services, and is presented as a continuation of the earlier studies, which have been issued by the American Hospital Association in pamphlet form. My hope is that each of these studies, which obviously are mere skeletons, may eventually be clothed in a becoming and suitable text by experienced writers, who can devote to the work the long hours of concentrated effort that so arduous a task demands.

A Reference List for Architects and Building Committees

Number of Operating Rooms

Based on number of operations; estimate maximum and minimum daily requirements; in this connection consider
- (a) Daily surgical admissions
- (b) Volume of routine surgical work daily
- (c) Requirements for emergency cases and peak load
- (d) Staff organization and case grouping (facilities for open staff greater than for closed staff)
- (e) Morning or afternoon program only, or all-day service
- (f) Separate operating rooms for courtesy staff (safeguards aseptic standards in staff service)

Location of Operating Rooms

Advantages of northerly exposure if natural lighting is to be used

Isolated location, free from miscellaneous hospital traffic

Stretcher route from and to wards and private rooms; avoidance of multiple elevator trips

Physical relation to cooperating departments, including radiography, accident and emergency rooms, laboratory, resident staff quarters (also quarters of night call nurse, orderly and anesthetist if service does not include day and night shifts or continuous duty)

Size of Operating Room

Minimum length and width of room sufficient to permit free circulation of attendants about the operating table and the surgical team (surgeon, operating assistants and anesthetist) without danger of contamination of aseptic field; 320 sq. ft. (exclusive of galleries or other space for observers) sufficient for normal working purposes; rooms containing scrub sinks, etc., must be larger than rooms from which plumbing fixtures are excluded; if large north windows are used in cold climate, consider the danger of placing the operating table too close to the window

General Arrangement of Operating Rooms

- Necessary service within the operating room by "unclean" assistants without invading aseptic working field; space on opposite sides of room for clean and "unclean" tables (see also "arrangements for observers")

Natural Lighting and Illumination

- North or northerly exposure
- Treatment of windows when other exposures are unavoidable
- Top light or vertical rays (value in abdominal surgery); climatic limitations to employment of overhead skylight in the summer; prevention of down draughts in winter (double glazing); radiator placement; location of warmed air outlets
- Dimensions of vertical window and of skylight, if any; area proportionate to size of room
- Relation of top of window to ceiling
- Height of sill
- Clear or translucent glass
- Cleaning arrangements (outside balcony, leaning rail, strap hooks, supports)
- Methods of controlling, regulating, or excluding light (lightproof shades of heavy, stiffened and filled fabrics, manually controlled or motor driven)
- Fixed or movable window sections. Wide or narrow mullions
- Facility of operating hinged sash (type of hardware)
- Material of window frames (rustless metal)
- Weather stripping
- Screening of open windows in summer
- Heating (commensurate with size of window and degree of exposure)
- Complete double glazing, or interior glass screen of reduced height to control down draughts; access to space between window and screen

Artificial Illumination

- Surgical illumination
  - Relation of light beams to surgical planes
  - Intensity, diffusion, control of shadows; illumination of field, reflection from field
  - Adaptability to type of surgical work
  - Obtainment of daylight values (color filtration)
  - Ratio of intensity to normal daylight
  - Influence of color background on eye strain and acuity of vision
  - Value of color background as reflecting surface
- Effect of intense, concentrated light on ocular accommodation
  - Indirect lighting
  - Semi-indirect lighting; use of mirrors
  - Single or multiple source
  - Distance from working surface
- Fixed *versus* adjustable overhead installations (advantage of flexibility *versus* danger of dust dissemination)
  - Heat production and control
  - Supplementary adjustable lights supported by ceiling rods, wall extension brackets, or floor standards (universal joint)
  - Special structural requirements
  - Cost of installation
  - Electric current consumption
- Utility lighting
  - Moderate intensity
  - Location
  - Sanitary features
  - Ease of replacement
- Emergency lighting system
  - Portable standard with portable battery
  - Central storage battery system
  - Automatic gas engine
  - Legal requirements
- Location of switches
  - In or out of operating room (factors of safety and convenience)

Air Supply and Air Treatment

- Direct (natural) ventilation; used chiefly in small hospitals having a slight surgical service (rooms aired between operations)
- Semi-indirect wall ventilators; warming and filtration of air-intake (associated with gravity exhaust flue)
- Indirect
  - Mechanical exhaust only
    - Actual sources of air supply where exhaust fan only is employed (air drawn directly from outdoors or directly ventilated corridors preferable to air from sterilizing and workrooms)
    - Gravity bypass to ensure modicum of ventilation when exhaust fan is not active
  - Mechanical supply
    - Rate of air change
    - Size of ducts; straight vertical ducts *versus* tortuous ducts; dry and moist air filters; cleaning of ducts and of dry filters
    - Thermostatic control
    - Arrangement for warming operating rooms in between-season periods when hospital wards are not heated
    - Humidity control standard to be maintained (comfort, physiological need, safeguard against static)
    - Seasonal variations

Control by operating nurses *versus* central control by house engineer
Signal lights if remote control is employed

Floor Material and Treatment

Tile; terrazzo; marble; glass; rubber; composition (sanitary value, safety factors, durability, comfort, maintenance, ease of repair, relative cost)
Grounded metal floor grid as safeguard against gas explosions
Floor slightly pitched to floor drain
Floor drain; location of drain (under operating table or at one side); flushing valve

Wall Material and Treatment

Tile (glazed or eggshell surface); marble; imitation marbles; terrazzo; glass; Keen's cement; plaster to ceiling or plaster above tile or other hard wainscot
Height of wainscot (a) utility height, (b) esthetic height
Cap above wainscot or flush finish
Sanitary base cove
Angular or cove finish for vertical room corners and ceiling junction
Enamel paint or dull finish of plaster surfaces

Color Scheme

Value of floors, walls, ceiling, respectively, as reflecting surfaces
Single color for walls and ceiling *versus* darker walls and lighter ceiling
Relation of color to eye fatigue

Doors and Doorways to Operating Rooms

Width of single doors
Conservation of floor space through use of double or divided doors; width of such doors; extra cost
Combination buck and jamb, flush finish
Amputation of door stop 6 or 8 inches above floor to avoid dirt pockets
Single acting or double acting
Direction of swing; projection into operating room or corridor; danger of collision; utilization of space
Sliding doors, exposed or in concealed grooves; access to grooves for cleaning
Hand control; pedal control with pneumatic operation; 100 per cent automatic, independent of bodily contact
Vision panel; height of center above floor; size
Wood (flush or panel); hollow metal
Push plates (metal, plastic material), of generous size
Protection from stretchers (metal, rubber or plastic material)
Locks and keys
Auxiliary dwarf doors (afford privacy and facilitate traffic and ventilation); dwarf doors inadmissible where air conditioning system does not include corridor and other adjoining space
Double acting doors or framed opening between operating room and scrub-up room

Arrangements for Observers

Portable stands (can be freely placed and removed when not wanted)
Built-in galleries (relatively commodious, higher than portable stands and therefore afford better view, but usually at greater distance from operating table)
Access to galleries or stands (noninterference with surgical procedures)
Space allowance (horizontal and vertical) for each row of seats; minimum height of first row of seats; distance from operating table; angle of vision
Galleries parallel with or at right angle to axis of operating table
Relation of gallery to window (obstruction of light)
Protection of aseptic field (glass shields)
Seating arrangements: economy of space in hinged seats; shape of seat to afford comfort; elbow rest
Projection system (observer in adjoining room)
Coat space at entrance to gallery or in separate room near visitors' entrance

Built-In Instrument and Supply Cabinets in Operating Room

Flush finish
Locks
Dustproof construction
Transparent or opaque doors
Width of (adjustable) shelves
Free access
Integral shelf alcoves with rounded interior angles; outer margin of shelf flush with wall

Electric Receptacles

A. C., or D. C. (usually house current) supplemented by A. C. (supplementary public service) for special purposes
General utility and special power plugs (portable x-ray, etc.)
Location; (a) safety factor, (b) convenient height of outlets above floor, (c) relative utility of assembled and distributed outlets

X-Ray Display Box

Portable
Fixed location (a) mounted on slide support in

corner of room, (b) flush cabinet (2 large sized films)
Unobstructed view from operating table and gallery

Dark Room for Fluoroscopy (convenient location)

Compressed Air and Vacuum Supply

Portable apparatus; or stationary pump with pipe lines to all operating rooms (pressure gauges)

Special Operating Rooms

Nose and Throat
- Special operating table or chair, or both; dental type cuspidor for minor operations
- Waiting room for ambulant cases
- Recovery room

Eye
- Lightproof shades; magnet; oil instrument sterilizer for cataract knives

Urology
- X-ray machine
- Nonconducting floor covering under table
- Formalin instrument cabinets
- Electric cabinet (fulguration)
- Adjustable ceiling rod with electric receptacle and rheostat
- Utility sink
- Toilet adjoining

Orthopedic
- Plaster sink and drain board (marble or wood); suspension apparatus; splint closet

Emergency (may be in accident ward)

Surgical Treatment or Dressing Rooms (distinct from operating rooms)
- Location (adjoining operating room or wards)

Surgeons' Scrub-up Sinks
- Water supply (city water; filtered supply; sterilized supply)
- Proximity to operating room (danger of contamination increases with distance); in operating rooms, in alcove adjoining, or in separate room
- Ratio of scrub-up sinks to operating tables
- Single scrub-up alcove for two operating rooms (economy of double service)
- Height of rim from floor
- Height of spout above rim (for comfort and avoidance of splashing)
- Elbow, knee or foot control
- Material and finish of fittings (brass, nickel, chromium)
- Brackets or pedestals
- Single or double sinks (do double sinks threaten asepsis?)
- Open spout on rose spray
- Mixing valves (type)
- Built-in soap and brush containers
- Liquid soap (gravity supply); control mechanism—foot or knee
- Shelves over sink (height, width)
- Large faced clock (effective location)
- Visual control of operating room
- Ventilation of scrub-up room or alcove
- Free space beside sinks sufficient for circulation without contact
- Gown and glove containers (in operating room or scrub-up room)

Anesthesia

- Relation of anesthesia rooms (a) to elevator, (b) to operating room
- Number of rooms (use of operating rooms for anesthesia)
- Width of doors
- Portable anesthesia stands *versus* central tank system with pipe supply
- Sink or lavatory
- Supply cabinet
- Stretcher guards (doors and walls)
- Ventilation
- Emergency push button
- Decorative scheme (psychological effect)

Sterilizing and Workroom

- Size of workroom (number of workers, volume of work; intermittent or continuous service)
- Central plant for sterilization of surgical dressings; location
- Central sterilization of (a) utensils, (b) instruments (risk of contamination in transit)
- Local instrument and utensil sterilizers; non-pressure or pressure type, adjoining operating rooms
- Single sterilizing or workroom with open sterilizers (instrument or utensils and instruments) for two operating rooms
- Access to local sterilizing and workrooms (a) from operating rooms, (b) separate access from corridor (requires additional space, but is serviceable), (c) automatic operation of door between operating room and adjoining sterilizing room ("magic" type requiring no touch)
- Built-in dressing sterilizers and autoclaves
  - Access to apparatus and connections
  - Ventilation of built-in sterilizer compartments; floor drain
- Electric sterilizers; advantages and disadvantages
- Size and shape of drum sterilizers; economy of labor in large units; recording gauges
- Auxiliary dressing sterilizers (breakdown service)

Hood over open type instrument and utensil sterilizers
Hydraulic or oil pump lift
Vents for exhaust steam extended to open air
Steam condensers ("ejectors")
Oil instrument sterilizers (electric connection)
Water sterilizers
Central or distributed
Size of units
Duplicate apparatus for emergencies
Recording gauges
Elevation to ensure adequate flow
Pipe system (tin lined) from central water sterilizers to operating rooms or adjoining workrooms (advantages and danger); reheaters at outlet (elbow control valve, receptacle beneath outlet)
Water still
Single, double or triple distillation; capacity; location
Cabinet for drums and supplies (separate storage for sterile and nonsterile supplies)
Metal or wood cabinets (pitched, sanitary top or built-in flush with plaster); drawers, cupboards; bins
Counter shelves of wood, rubber, linoleum, composition or of stainless, noncorrosive metal; height above floor
Interior adjustable shelves of sanitary construction
Work tables
Sink and drainboard
Warming cabinets; separate or combined blanket and solution cabinets
(a) Central installation
(b) Individual warming cabinets, convenient to operating rooms
Slop sinks
Convenient location; flushing rim

Special Workrooms

Glove preparation (sinks, cupboards, work tables, drying racks)
Salt solution preparation (single *versus* triple distillation)
Surgical tray preparation
Plaster room (plaster bandage preparation)
Splint room (on operating floor, or adjoining pharmacy or central supply room)
Instrument washing room

Instrument Storage

Central instrument room or distributed instrument cabinets
Small individual cabinets for surgeons' private outfits or for special apparatus under strict departmental control

Apparatus Room

For special tables and other bulky apparatus intermittently used

Recovery Room or Rooms for Desperate Cases

Proximity to operating suite

Rest Room for Minor Ambulatory Cases
Private Consulting Room near Operating Room

For convenience of visiting staff

Laboratory for Frozen Section Work

Not necessary if pathological laboratory is near-by

Clinical Record Room

Stenographic service

Supervising Nurse's Office

Telephone; emergency signal annunciator; clock, doctors' call system

Local Signal System

For individual operating rooms connecting with (a) supervisor's office; (b) anesthesia room; (c) laboratory; (d) students' waiting room

Dressing Room for Visiting Staff

Shower, toilet, telephone (exposed telephone or booth), space for desk, couch, chairs, lockers (individual lockers for active staff surgeons)

Lounge and Dressing Room for Surgical Staff

Usually combined with dressing room in smaller hospitals

Special Dressing Room for Courtesy Staff

Registration Room and Lounge for Medical Visitors

Large clinics only; visitors' gown closet in smaller hospitals

Dressing Room for House Staff

Alternate: use of visiting staff dressing room

Students' Lounge and Toilet

Teaching hospitals only

Telephone Booth

Accessible to medical visitors

Nurses' Dressing Room

Lockers, w. c., shower, couch

Orderlies' Toilet and Dressing Room

Soiled Linen Closet

Ventilation

Cleaners' Closet with Slop Sink

Ventilation; sanitary finish

Corridor

Width; ventilation; acoustical treatment; floor finish; wall protection; privacy

Flexibility Is Keynote of This 100-Bed Hospital

By BENTON & BENTON
Architects, Wilson, N. C.

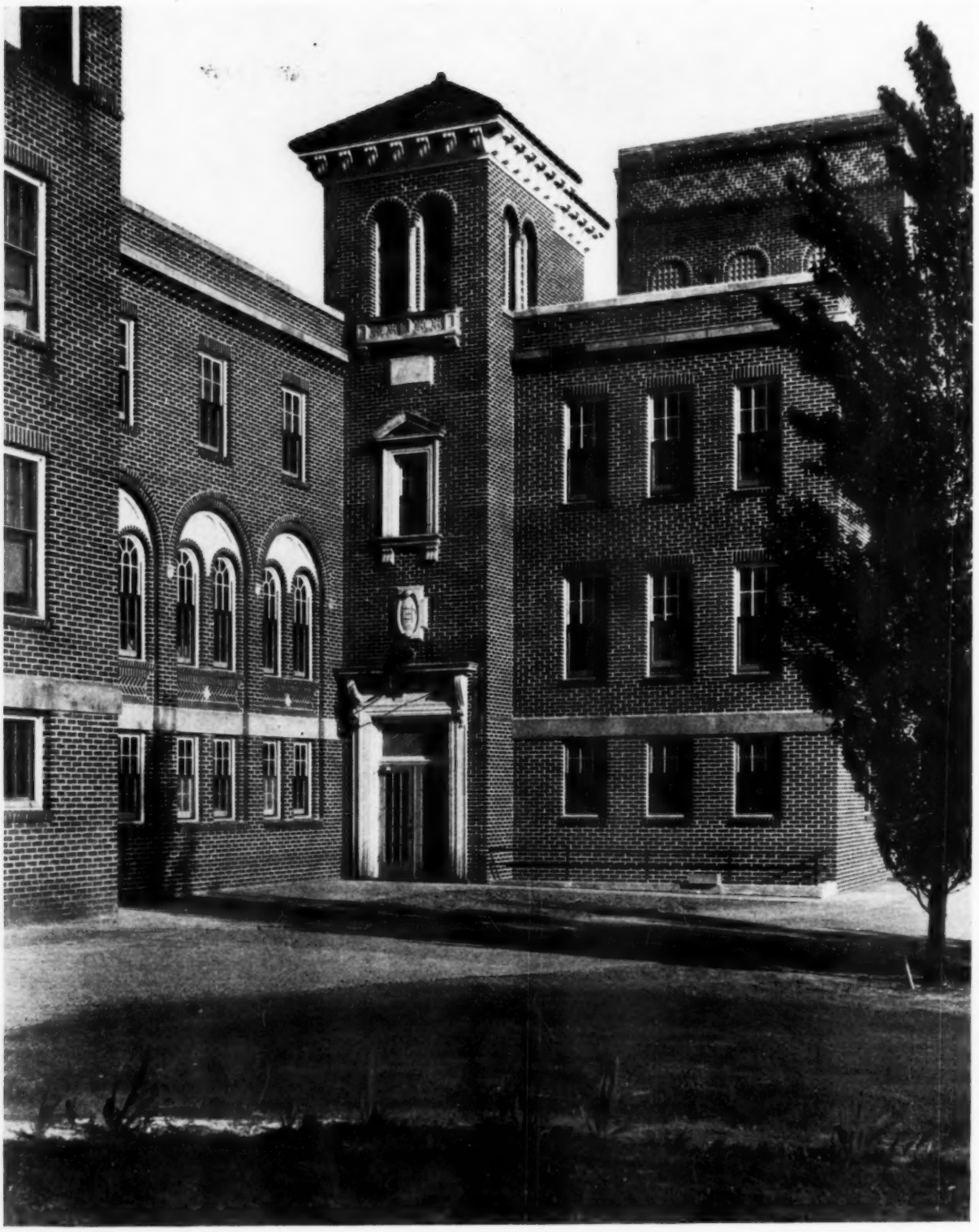
DAVIS Hospital, Statesville, N. C., is situated on a fine residential street. It is several blocks away from the noise of the city's business section, in a quiet and restful neighborhood. The grounds consist of several acres on which are the hospital, the nurses' home and a central power plant, with sufficient space for enlargement of the institution, for parks, flower gardens or any other future requirements.

The nurses' home, an attractive two-story residence surrounded by trees is a few yards east of the main hospital. It fully meets the requirements of convenience and comfort and is supplied with every facility for rest and recreation.

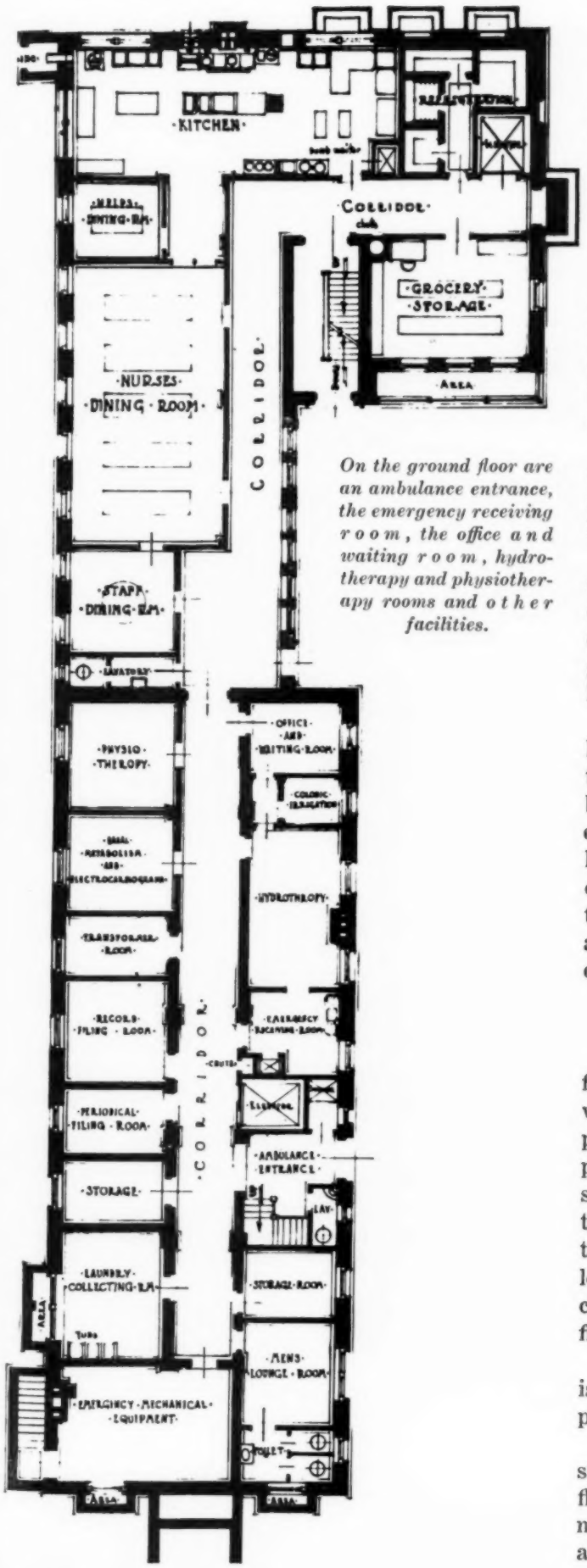
Across the street from the hospital is a lot more than an acre in size, which is reserved as a parking place for cars. This eliminates the congestion that would result from parking cars in front of the hospital. The lot is flood lighted so that cars can enter and leave by night as well as by day without confusion. It has a separate entrance and exit which further aid in eliminating accidents.

All buildings are heated from a central heating plant designed so that there is sufficient space for future installations. The plant is equipped with high pressure steel boilers, automatically stokered with all necessary pumps, hot water tanks and other devices. The heating is a modulating vapor system controlled in sections by gate valves, so arranged that it can be connected with the emergency equipment. The mains for the supply and returns, the hot water supply and high pressure steam for sterilizing and cooking are conveyed through a concrete tunnel, 4 by 6 feet and 200 feet in length. All gate valve controls, pressure reducing and relief valves are in a tunnel, which makes them easily accessible. The building containing the heating plant, situated 200 feet west of the hospital, is designed to provide for the installation of a laundry and is sufficient in size to

The exterior walls of Davis Hospital are faced with tapestry brick in harmonizing colors.



The Davis Hospital is an interesting example of Italian Renaissance architecture in North Carolina. In the exterior, tapestry brick and Indiana limestone with touches of tile and wrought iron are pleasingly combined.



On the ground floor are an ambulance entrance, the emergency receiving room, the office and waiting room, hydrotherapy and physiotherapy rooms and other facilities.

accommodate both the present and contemplated requirements.

A private general hospital not only must be well located and fireproof, but it must be neat and attractive in appearance and so arranged that the maximum amount of work can be accomplished with the minimum effort and expense.

What Private Institutions Should Offer

The existence and success of a private institution depends upon the type of service rendered its patients, upon a low mortality rate, a high percentage of good results, a reasonable charge to patients and to some extent upon various other factors.

Davis Hospital is building up a well organized staff of highly qualified doctors and nurses. All men in the hospital devote their entire time to the institution.

Keeping down the overhead expenses by eliminating useless personnel and by having the greatest possible number of conveniences for the use of the staff and the various members of the organization was considered in the planning of this hospital.

In designing a successful hospital, the first problem that presents itself to the architects is how to arrange an elastic group plan capable of being built in units. After thoroughly considering the existing conditions an L plan was devised, the longer section joining the rear wing of the present building with the shorter section forming half the base of a U. To this, future units are to be added which will complete the group, providing a central court 100 by 104 feet.

Architecture Shows Italian Influence

The building is four stories in height and is of fireproof construction with exterior brick bearing walls, steel frame and concrete slabs with interior partitions of gypsum blocks. All walls are dampproofed. The architecture is of the Italian Renaissance type. The exterior walls are faced with tapestry brick in harmonizing colors and are trimmed with Indiana limestone. The roof of the lower entrance and the stair hall is covered with clay tiles in pleasing shades. All walls are of hard finish plaster with sanitary corners.

The entrances are artistic and over each door is a specially constructed lamp which gives the place a pleasant and inviting appearance.

The floors in the rooms and wards are of composition asphalt tiles with sanitary base. All corridor floors are of tile linoleum. These are sanitary, noiseless and resilient. The floors in the kitchen and service rooms are of impervious tile with

sanitary base and these rooms have white glazed wainscoting 4 feet high. All door jambs and trim are of enameled steel of a sanitary pattern. The doors are of birch wood slab construction and are equipped with modern hospital hardware consisting of push plates, arm pulls, rubber bumpers and combination door checks. All trim throughout is designed so as to eliminate places where dust might collect. All windows have double sashes hung on weights and are glazed with glass that admits ultraviolet rays. All sashes are designed to leave a ventilation area at the meeting rails

venience. One of the most important is a coal supply reservoir into which coal is placed from the outside of the building. There is an opening on the inside to the right of the main stove which makes it possible for coal to be shoveled directly from the reservoir into the stove without the use of the usual dirty, dust spreading scuttle. There is a garbage collector into which garbage is thrown through a door in the wall in the kitchen. From this opening the garbage empties directly into a barrel, which is carried away at regular intervals. The barrel is in a sanitary, flyproof house

The building containing the heating plant is 200 feet from the hospital, and is large enough for present and future needs.

without necessitating the raising of the bottom sash above the stool. Particular attention has been paid to fire exits, which consist of steel stairways enclosed in a brick fire tower.

The color scheme has been chosen with care. The floors of the rooms are in alternating black and tan tiles. The corridor floors are black and cream. The doors are of mahogany finish. The general color scheme in the rooms varies with the different departments and units of the hospital, and has been selected with the view of obtaining the best colors for each particular unit. Care has been used in selecting materials that are sanitary and lasting and that can be readily cleaned.

The kitchen is well arranged and contains certain original features that add much to its con-

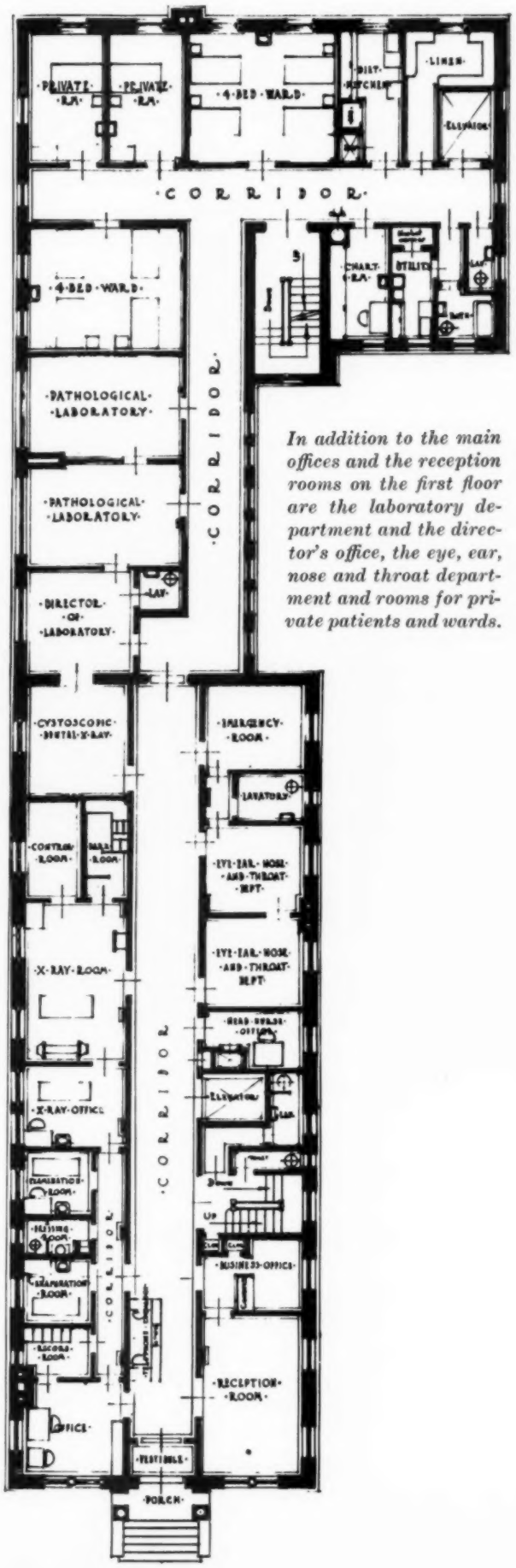
and is emptied and replaced from the outside. The kitchen is supplied with every modern convenience, including a potato peeler and a dishwasher.

Colored Help Have Separate Facilities

There is a large dining room for the student nurses and the graduate staff. Adjoining the kitchen is a small dining room for the colored help. The colored help have their own dishes and silver, and these are washed in a separate room.

The storeroom contains four windows and is well lighted, airy, sunny and sanitary. Adjoining the kitchen is a cold storage room.

In the basement are toilets, lavatories and shower baths for the colored help.



In addition to the main offices and the reception rooms on the first floor are the laboratory department and the director's office, the eye, ear, nose and throat department and rooms for private patients and wards.

The building contains 31,000 square feet of floor space and has a capacity of 100 beds. In the basement are general storage space, refrigerating machinery and a soiled linen room. This room is connected to each floor by a porcelain enameled laundry chute, which is so arranged that it can be easily sterilized as often as is necessary.

Various Services Are on Ground Floor

On the ground floor are an ambulance entrance, the emergency receiving room, the office and waiting room, the hydrotherapy and colonic irrigation room, physiotherapy, basal metabolism and electrocardiograph rooms, a men's lounge and smoking room, the staff dining room, the nurses' dining room, the help's dining room, the main kitchen, the incinerator, the grocery storage and the refrigerating department. There are also a storage record room, an emergency mechanical equipment room, a transformer room and a laundry collecting room.

The first floor consists of reception rooms, the business office, the private office, the head nurse's office, the telephone exchange, the record room, emergency rooms, examination and dressing rooms, the x-ray office, the x-ray room control and dark room, with a special room for cystoscopic and dental x-ray work. This floor also contains the eye, ear, nose and throat department, pathologic laboratories and the office of the director of laboratory work, chart rooms, the diet kitchen, utility rooms, laboratories, wards and rooms for private patients.

The laboratory department is constructed along unusual lines. It consists of two rooms, each 13 by 18 feet. In each room there are three sinks, and the various test apparatus are so grouped that six technicians, if necessary, can work at the same time, each on a different test without interfering with the others. The reagents and apparatus are grouped together for convenience.

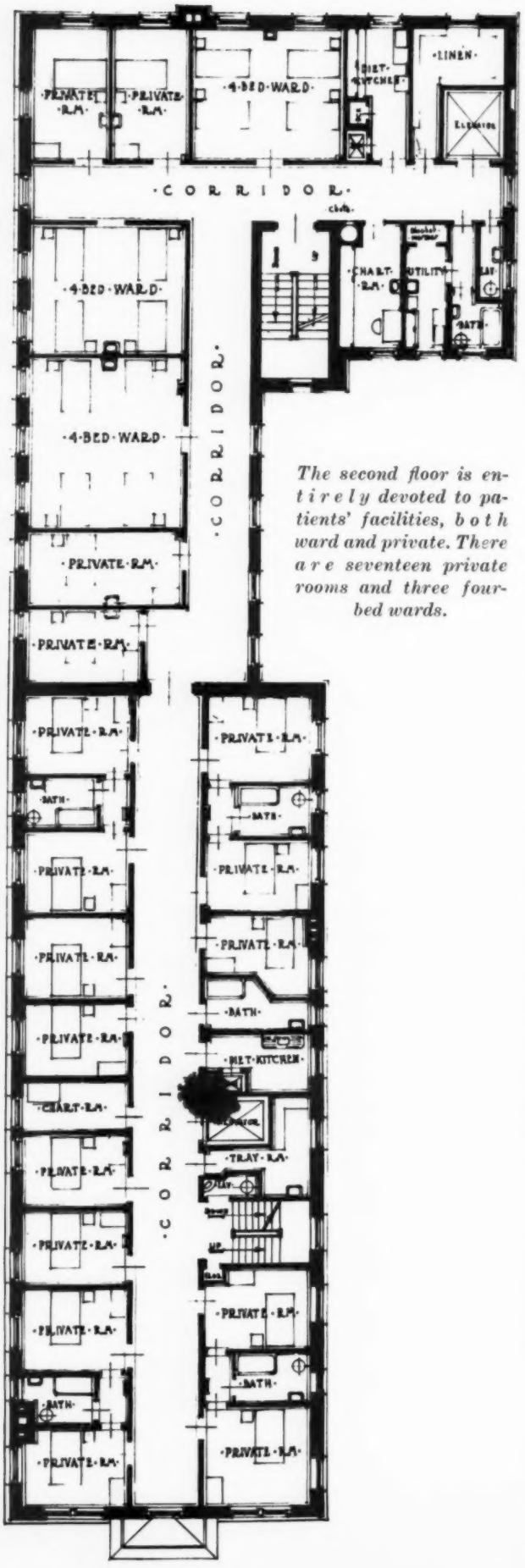
The eye, ear, nose and throat department consists of three rooms which are completely equipped with every device for this work.

How Second and Third Floors Are Arranged

The second floor contains private rooms, wards, a chart room, a diet kitchen, utility rooms and lavatories.

On the third floor are private rooms, a diet kitchen, utility rooms, lavatories, a clinical corridor, two operating rooms, an obstetric delivery room, a sterilizing room, a sterile dressing room, a doctors' dressing room, an anesthetizing and recovery room and built-in instrument cabinets.

The open air solarium for outdoor treatment is so arranged as to give patients the advantage of



The second floor is entirely devoted to patients' facilities, both ward and private. There are seventeen private rooms and three four-bed wards.

sunshine each hour of the day and to add to their comfort it is serviced by an electric elevator, an electric dumb-waiter, a service kitchen and rest rooms for men and women.

The mechanical equipment of the hospital is of the most modern type. The building is serviced by two electric elevators of sufficient size to accommodate both beds and wheel stretchers. They are equipped with the latest safety devices. Each diet kitchen is serviced from the main kitchen by push button, automatic, electric dumb-waiters which are of sufficient size to accommodate trays. Administration is simplified by a modern telephone system with an expert operator in charge. Each room is equipped with a plug-in telephone for outside and long distance service, in connection with the hospital exchange.

Silent Call Flash Light System Used

Each patient's room is equipped with a silent call flash light system with a pilot enunciator in each chart room and a pilot flash light in the diet kitchens on each floor. The major enunciator in the head nurse's office registers calls from all rooms and wards. The private rooms, wards and corridors are lighted with concealed wall units at night, in addition to those used for general illumination.

Realizing that the first cost is always the minor one, those planning the hospital gave every consideration to choosing and placing the plumbing equipment. All pipes are in accessible chases and are properly valved. All lavatories, baths and sterilizers are of acid resisting material, special attention being given to wastes in the lavatories and to grease traps in the kitchens. The hot water supply is on a circulating system, which instantly provides water at a high temperature from the storage in the central heating plant. Ample mains have been provided for the cold water supply, due consideration having been given to the hydrotherapy equipment.

No Charity Patient Refused Care

The hospital has been built as a permanent, self-perpetuating institution. It is entirely free from political influences. It is so organized and operated as to be able to give the finest medical and surgical attention to patients at a cost within the reach of persons of moderate means.

Notwithstanding the fact that Davis Hospital is a private institution, receiving no public contributions and even paying the usual county, municipal and state taxes, no worthy charity case has ever been turned away for lack of money. The good accomplished in this way is of incalculable value to the community.

Translating Food Economics Into Simple Terms of Service

A Paper From the American Hospital Association Meeting

By MARY M. HARRINGTON
Director of Dietetics, Harper Hospital, Detroit

HOSPITAL food economics concerns itself not only with the cost of production in the hospital, but with the cost of maintenance to the patient after he leaves the hospital. Although the hospital is concerned primarily with the actual outlay involved in the purchase, preparation and service of food, it also has an educational responsibility in teaching the patient better food habits in order that he may continue the prescribed treatment at home.

The first phase may be analyzed on a purely business basis, and the contributions of many fine dietitians, restaurateurs and hotel administrators may be applied to this study. Walter Baker says: "Every guest of the hotel must be satisfied. Is this true of hospitals?"[1] There are many principles of hotel administration that can be applied to the hospital dietary department. Its kitchens should follow the same military precision, purchased food should be accounted for as carefully and every patient should leave the hospital feeling thoroughly satisfied and contented. To accomplish this ideal, a close contact must be maintained between the dietary department and the patient. The system of listing complaints supplies information that assures greater satisfaction for the patient.

In spending her part of the hospital dollar, the dietitian must keep in mind her responsibility to the institution she serves to plan wisely and thriftily while at the same time she pleases the patients with well cooked food and sends them back to their homes able to care for their own nutritional needs.

In a hotel, "guest satisfaction" is the ultimate accomplishment. "Patient satisfaction" is of equal value in a hospital. The means of attaining this objective in the hospital, however, presents a different problem. The hotel guest pays for the humoring of all his personal whims, and for that reason the hotel feels he is entitled to anything he may demand. The cost involved tends to limit the guest's demands, and the remuneration includes the hotel's efficient method of service. The hotel caters to the desires of its guests, but the hospital has to correlate the desires of its patients with their needs, and educate them toward better health standards. Would the hospital be justified in permitting a patient anything he desires, so long as he pays for it, when his health is dependent on his nutritional status, and a continuation of the treatment is necessary at home for many months? The patient has to be taught proper food and health habits without any apparent interference with his desires. This requires an understanding of the psychology of handling the sick, and the cooperation of the many trained persons who come in contact with the patient.

When a hotel guest reads the table d'hôte menu, and orders squab in preference to the listed entrées, he expects to pay a substantial price for the special order. When the hospital patient reads the menu, and orders squab, if his diet permits it, he thinks the hospital owes it to him because he is ill and has no appetite. The cost of this special order may be the same to both institutions, but the hotel collects two or three times the actual value while the hospital barely collects the cost. The hotel supplies any food the guest desires, but the hospital has the educational responsibility for changing the indulgences of many years and creating new food habits.

Food purchasing should be the responsibility of one individual and in the larger institutions

[1] Baker, Walter, Hospital Administration as Seen by a Hotel Executive, THE MODERN HOSPITAL, August, 1931, p. 71.

should be done by the steward or a purchasing agent. It should not be a subordinated duty of an administrative dietitian, unless she is relieved of the responsibility and supervision of food preparation and service, and has time for competitive marketing, judging foods and analyzing prices.

The Daily Menu—Its Cost and Preparation

The dietitian is responsible for the disbursement of a large portion of the hospital dollar and must know how to spend that money wisely and with a reduction in expenditure when necessary. Quality, quantity and cost are factors that regulate the daily menu. This involves a knowledge of exact ordering, labor in preparation and market fluctuations. Close cooperation must exist between the dietitian and steward so that the dietary department may reap the benefit of "buys," and the purchasing department may have the technical assistance in regard to quality, quantity, the size of container best suited to the needs and maximum portions to the container. The steward devotes his entire interest to the business of competitive buying. The dietitian is vitally concerned not only with the best food value received for the money expended, but also with food preparation and service. The relationship of the steward and the dietitian is similar to that of the jobber and the retail merchant. One is interested in quantitative buying and the other in pleasing the individual. Each has a responsibility that requires intelligent study and correlation.

To provide good food is economy, and a perfect menu is well balanced, attractive and reasonable in cost. It is planned with a careful consideration of the following factors: (1) cost—standard portions, standardized recipes; (2) variety; (3) popularity—institutional *versus* commercial; (4) division of labor; (5) use of leftovers.

The cost of production is always a fundamental factor in any business, and constant supervision is necessary to improve the quality of the product and at the same time to decrease the waste. Cost should not be regulated by the selection of a cheaper quality of food, but by the utilization of all food purchased and by a reduction in waste and leftovers, which may be considered as waste unless they are used in the place of foods of equal cost. The daily cost sheet is an essential part of the records of the dietitian if she is to know the quantity of food ordered, the exact quantity received and its distribution in relation to the number of persons served. Every institution has a per capita allowance which must remain within a reasonable average, and this daily record prevents wide variations by eliminating careless ordering, and reveals leaks due to careless utilization.

Orders should be planned on an accurate basis, allowing a standard increase of 25 or 50 per cent for increase in census and second servings. A marked increase in cost may be observed unless this factor is carefully checked each day. For instance, 1,000 portions of chicken, cut from three-pound hens, means a specific order of 250 hens, each of which weighs three pounds. The total order would amount to 750 pounds; but if the market sends 250 hens, each weighing five pounds, the total weight increases with the corresponding increase in cost for the same number of portions. Standardization of the size of the portion permits accurate ordering, the serving of uniform quantities and a reduction in the quantity of prepared food. It also maintains an accurate check on leaks. If three strips of bacon are the accepted amount of a portion, the chef prepares only sixty-six pounds to serve 1,000 persons, and pans of cooked bacon are not found on the shelf when the routine check of leftovers is made. Likewise, standardized recipes, calculated on the basis of 100 portions, regulate the quantity prepared and assure more nearly uniform products. If these recipes are given with the menus to the chef, large quantities of desserts and pastry do not remain after the meal.

A variety of seasonable fruits and vegetables adds to the attractiveness of the menu and reduces the cost when these foods are plentiful and inexpensive. In winter, however, it may sometimes be expedient to include in the menu a food the cost of which places it in the class of delicacies. Such an expenditure may be compensated for by planning an inexpensive dessert or entrée. Variety is often overemphasized. If greater attention were given to the quality of preparation and to the service of simpler foods, the institutional menu would compare more favorably with the menu in the home.

Popular Menus Mean Food Economy

The popularity of foods should be weighed in menu planning, but it must also be considered as an unstable factor. Appetite, economic status and psychology determine the consumer's reaction toward certain foods. Education and administrative cooperation will help to change the individual who lives to eat, but they will not solve the problem. A definite system of scoring the menus according to their popularity in each group will eradicate the personal element, remove unpopular foods and eliminate waste. Uneaten food means full garbage cans, increased cost and discontent.

Man's valuation of that which he receives as compensation and of that which he purchases is very different. The business of feeding hospital

personnel will not be efficient until hospitals give full remuneration for services and maintain dining rooms and cafeterias where the employees may buy their meals. This is a policy adopted by many large business organizations, because it gives the individual greater freedom and saves money for the institution. A person buys his meal according to his purse and rarely selects steaks, chops and the generous variety of the institutional menu, but chooses the foods that are scored so harshly on the hospital menu.

Feeding the Personnel

Hospital dietitians who have entered the commercial field and restaurant magazines are responsible for the statement that foods that sell best over the counter are the particular ones that would make the dietitian decidedly unpopular in the hospital. Dietitians have observed that the persons eating in the pay cafeteria invariably choose lamb, frankfurters, sauerkraut and the various foods that cause the strongest objections on the house menu. No doubt, this is regulated by the amount of money the individual has to spend, but a fact that is often overlooked is that the hospital also has a cost factor regulating its selection of foods. How many of the hospital personnel would have the advantage of the same quality, quantity and variety of food each day if they were eating in restaurants or preparing it at home? What is the nutritional status of these persons? Which malnutritional group do they constitute, obesity or underweight?

The labor involved in the preparation of food greatly increases the cost of food, but a dietetic staff adequate to provide a careful planning of the menus and a constant checking to eliminate waste and improve quality will maintain higher standards at a lower cost. Such a staff will provide closer contact with the physician and will mold the routine menu to the needs and desires of the patient. The public has expected a far greater decrease in food prices than has been noted. Those who are experienced in food preparation and service realize that while commodities have decreased from 13 to 15 per cent, the cost of labor does not change unless skilled employees are replaced by less experienced persons at low salaries. Efficient administrators know this is false economy. A drastic decrease in wages and personnel in one organization showed only a 5 per cent decrease in the cost of production, providing many opportunities for a decrease in quality and efficiency.

Menus that are regulated too severely by the labor involved are more expensive and less pleasing. Berries, peas and other fruits and vegetables, which may be purchased at a low cost in season, must be omitted from the menu because of the time required for their preparation and more expensive and less attractive foods substituted. As a result the total cost is much greater than the salary of the additional employee.

Leftover food should not be a problem in a well organized dietary department. Large quantities of prepared foods left after a meal are due to careless ordering, poor planning or careless preparation, and are one of the outstanding causes of increased food costs unless these same foods replace foods of equal cost on the menu. Leftover chicken, which cost twelve cents a portion, is an extravagance if it replaces a five-cent serving of meat which had been planned to balance the cost of an expensive entrée. This same leak may be observed if an excessive amount of dessert costing five cents a portion is served on a menu, when a less expensive dessert had been planned. This problem is solved to a large extent by the efficient regulation of ordering and of preparation.

Constant checking and supervision are necessary to prevent excessive ordering and short deliveries and to ensure uniform standards of preparation in specified quantities, a careful use of leftovers and the elimination of waste. A dietitian's responsibility has been well expressed as one of constant checking and rechecking.

Every hospital worker has a part in preventive medicine by teaching better health and food habits. Student nurses and student dietitians are trained with this objective and every contact provides an opportunity for intelligent, sound help in solving the problems of the less fortunate of mankind. Now more than ever before does this responsibility manifest itself if nutritional deficiencies are to be prevented in the future. Health statistics show that poverty does not mean that a person must be underweight, and that the health of the country has been better during the last year or eighteen months than in the previous year. The consequences of overeating and overweight are serious, and their relationship to various diseases is illustrated by insurance statistics.

Relation of Food Economics to Public Health

In what manner is food economics in the hospital related to public health? Every hospital is vitally concerned with providing the best care for each of its patients and in sending these patients home prepared to continue a mode of living that will improve their mental and physical well-being and fit them as nearly as possible into their former routine. What can be done about the patient who tells the nurse, "This food is wonderful, but I can't eat like this when I go home," and the one

who cannot eat pork because it "distresses" him, and cabbage because it "lays heavy"?

Many of these individuals must live on as small an amount as $1.75 a week or twenty-five cents a day. How much food value will twenty-five cents spent in retail buying offer as compared with the larger hospital capital for food purchased at wholesale prices? This problem must be solved by the education of the patient. There is the problem of the diabetic whose diet skillfully planned with the cheapest foods will cost about sixty-five cents a day. This diet is necessary to promote health and to prevent the individual from becoming an institutional charge. He must either be taught how to live independently on his budget, or else larger sums must be spent in caring for him in hospitals, institutions and clinics. The education of the patient is the only solution of the financial problem involved, and hospitals must make every attempt to accomplish it.

Doing Away With Food Prejudices

Food prejudices may be indulged in by the wealthy, but they do not promote an optimal state of nutrition and have no place in a sound public health movement. Percy G. Stiles in his book, "Nutritional Physiology," emphasizes the fact that disorders of digestion arise when the food eaten is above criticism as to quantity and kind, thus showing that a relationship exists between the mental state and digestive disturbances. M. E. Rehfuss, P. B. Hawk, O. Bergeim[1] and others have given us extensive data on the rate at which various foods are digested, the extent to which they are digested and their effect on the gastro-intestinal mechanism. Dr. Morris Fishbein, editor, *Journal of the American Medical Association,* and others have emphasized that most of the popular beliefs regarding foods are mere fallacies and traditions. Graham Lusk in his book, "Science of Nutrition," and many other investigators show that all men have the same nutritive requirements, even though the fundamentals of nutritional psychology may vary according to race, nationality and environment.

Agriculturists apply all these principles to animal feeding, thus improving the nutritional state of their stock, but man refuses to be as scientific and neglects the nutritional state of the body to indulge appetite. Education of the right sort will correct such disorders of appetite as obesity, malnutrition and deficiency diseases, and will correlate the desire for food with nutritional needs.

The patient with limited finances must be taught that his allowance will be adequate for health if he will choose foods that offer the greatest value for the least money. Fat meats offer from 75 to 200 calories for one cent and lean meats offer only from 15 to 45. Why not select pork instead of beef, if it supplies more food value, costs less and is equally digestible? Why not use cabbage if it costs less than lettuce and other vegetables, supplies the necessary constituents and provides more bulk? Cottage cheese costs much less and can be used to replace expensive beef in the diet. This is the food economy a patient should practice in order to promote better nutrition on a small budget.

Nature has endowed us with a digestive apparatus that normally digests, absorbs and assimilates practically all foods uncontaminated by bacterial and chemical poisonings. It is interesting to notice that one can eat and digest foods that are disliked if one is needy or if the foods are disguised. An analysis of the complaint lists of hospital patients shows that the majority are made not on the basis of digestibility, flavor or preparation, but on the basis of variety and personal likes and dislikes. Is variety essential, or is it the result of education, habit and money?

The patients must be taught that expensive foods may produce a state of poor nutrition and most cheap foods are extremely valuable in producing an optimal state. Present economic stress has done much to conquer the pampered appetite, and proper education will teach patients to eat to live in a good state of nutrition, free from underweight, obesity and other malnutritional diseases.

[1]Response of Normal Human Stomach to Various Standard Foods, and a Summary, Am. Jour. M. Sc., 171:359, 1926.

Artificial Sunburn as a Means of Identifying Babies

Artificial sunburn may replace tags and footprints as a means of identifying newborn babes at the Shore Road Hospital, Brooklyn, if recent experiments prove successful.

The new method, experiments in which were made recently, consists of branding new babies with their family names through the use of a stencil device and ultraviolet rays. The branding is done on the thigh and is harmless as well as painless.

The artificial sunburn lasts about two weeks, which is the time most babies spend in a maternity hospital. But for two or three months after that time the letters can be brought out by special apparatus without exposing the child again to ultraviolet rays. Many expectant mothers dread the possibility of a mix-up among the babies, and while tags and footprints may be confused, the new method makes identification more sure.

Delaware Offers an Added Service to Its Mentally Ill

By M. A. TARUMIANZ, M.D.
Superintendent, Delaware State Hospital, Farnhurst, Del.

THE psychiatric observation clinic of the Delaware State Hospital, Farnhurst, was opened February 12, 1931.

Other states have observation clinics in which patients who are suffering from mental and nervous diseases are studied and their conditions diagnosed before they are committed to a state hospital, but Delaware is one of the few states that has a period of observation for all before they are regularly committed. It is fortunate that the state is small in area as well as in population, for only in such a situation can so comprehensive a plan be carried out.

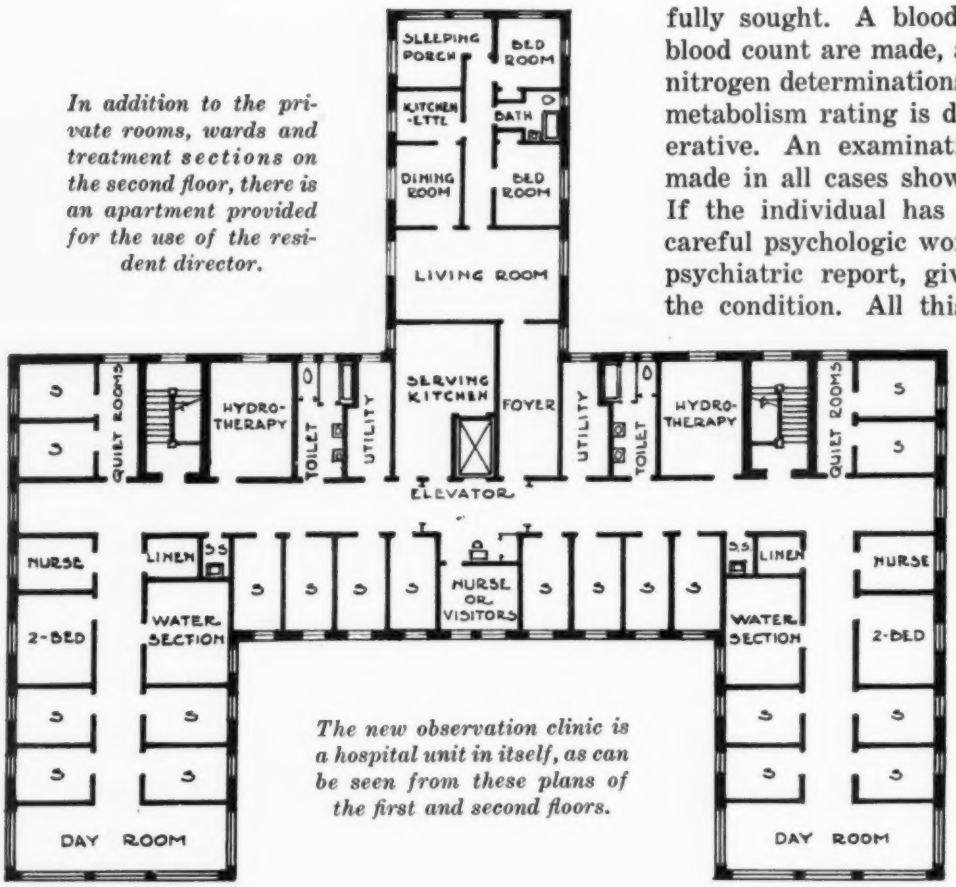
A clinic that before commitment studies all types of mental and nervous diseases, as well as those actually psychotic, is a valued addition to any state institution. In many instances actual residence in a hospital for mental diseases may be avoided. This would be particularly true of patients suffering from certain types of toxic psychoses or mild depression.

The institution recently opened has facilities for forty patients—twenty men and twenty women. It is a complete hospital unit in itself, being fully equipped for all types of diagnosis and treatment. It has a portable x-ray unit, an individual dental unit, facilities for physiotherapy, hydrotherapy and minor surgery, a physician's office with a completely equipped examining room, a modern kitchen unit and an apartment for the resident physician.

When the patient enters the clinic, he is carefully studied from all points of view. He is put to bed and given a thorough physical examination, accompanied if possible by x-ray and other laboratory work in which foci of infection are care-

Private rooms in the psychiatric observation clinic are attractively and comfortably furnished.

In addition to the private rooms, wards and treatment sections on the second floor, there is an apartment provided for the use of the resident director.



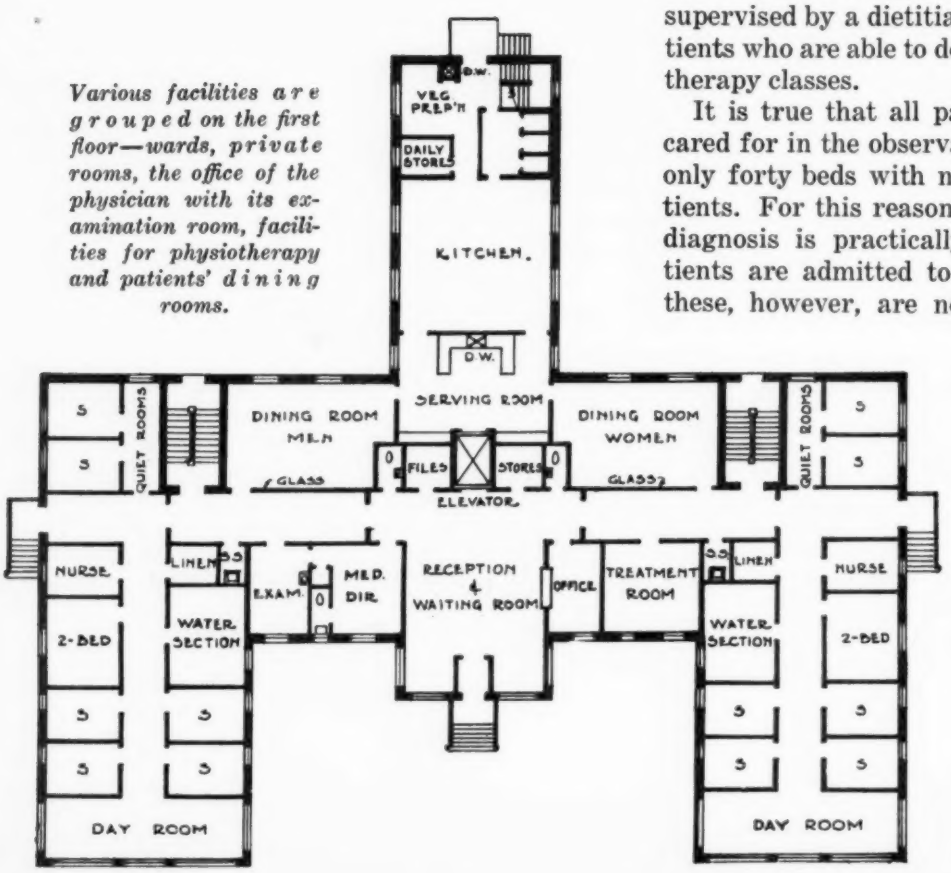
The new observation clinic is a hospital unit in itself, as can be seen from these plans of the first and second floors.

fully sought. A blood Wassermann test and a blood count are made, as well as blood sugar and nitrogen determinations, when necessary. A basal metabolism rating is done if the patient is cooperative. An examination of the spinal fluid is made in all cases showing neurologic symptoms. If the individual has any contact with reality, careful psychologic work is done. This, with the psychiatric report, gives a complete picture of the condition. All this information is obtained before the individual is legally committed to the institution.

During the period of observation, the patient receives all necessary treatment. He is seen by the visiting dentist. If necessary, a member of the visiting staff is called in consultation. Visual defects are corrected.

The hydrotherapy department is equipped to care for all disturbed conditions as well as for certain types of neuroses. Light treatment is given when the members of the staff feel that it will be beneficial. Special diets are supervised by a dietitian. After a few days all patients who are able to do so attend the occupational therapy classes.

Various facilities are grouped on the first floor—wards, private rooms, the office of the physician with its examination room, facilities for physiotherapy and patients' dining rooms.



It is true that all patients admitted cannot be cared for in the observation building, as there are only forty beds with no facilities for colored patients. For this reason, the patients in whom the diagnosis is practically certain and colored patients are admitted to the main building. Even these, however, are not legally committed until they have passed through a similar period of observation.

Mental illness is still considered a disgrace, and it will take much effort on the part of physicians to change such an idea. The present status of mental and nervous diseases must be changed so that the feeling towards those so afflicted will be the same as toward any person physically ill. The medical profession of the state should

The exterior of the new observation clinic, pictured above, follows simple, dignified lines. A view of the recently completed nurses' residence is shown at the right.

realize the importance of such an institution and should readily use the advantages offered. Such advantages are not often available for those whose efficiency is lowered by borderline mental or nervous defects, many of which can readily be alleviated by a short period of study and treatment.

Members of the medical profession should do their part in educating the public to recognize the early signs of nervous trouble so that serious results can be avoided. They should not feel that contact with mental disease is abhorrent and should take the same interest in such cases as in other bodily diseases. When it is realized that one out of every twenty-five people will at some time suffer from a serious mental or nervous disease warranting special care and treatment, the importance of a psychiatric observation clinic can readily be realized.

The rules for admission to this clinic are:

Any physician licensed to practice medicine in Delaware may cause any patient under his care who is suffering from an acute, subacute or doubtful mental or nervous disease, to be admitted to the clinic, provided the physician makes an application, on an official blank, for the admission of such a patient and provided the physician reports the case to the member of the Delaware State Hospital board of trustees of the district in which the patient resides. After complying with this, the physician shall communicate by telephone or otherwise with the superintendent of the Delaware State Hospital, and if there is an available bed in the clinic, the superintendent makes arrangements to admit the patient. If not, the application is placed on file and the attending physician is notified when a vacancy occurs.

A patient admitted to the psychiatric observation clinic shall remain in the clinic for a period not to exceed four weeks. But if the clinic, after observation and study, finds that the patient does not require any further hospitalization in the clinic, it has the authority to discharge such a

patient after notifying the attending physician and the family of the patient.

On the other hand, if the clinic finds it necessary to prolong the hospitalization of the patient for a further period of four weeks' duration, the patient may be detained in the clinic for this period, upon the approval of the state board of trustees. Any person who shall be admitted to the clinic shall not be allowed to depart therefrom prior to the expiration of this four weeks' period or any extension of it, in case such an extension shall have been made, without the consent of the superintendent of the Delaware State Hospital.

If a patient admitted to the clinic for observation is found suffering from a psychosis that requires prolonged hospitalization, the case must be reported to the state board of trustees of the Delaware State Hospital by the superintendent. Upon receiving this report, the state board of trustees shall appoint a commission consisting of two qualified and licensed physicians, who shall determine whether the patient has a mental illness and should be legally committed to the Delaware State Hospital. Should the relatives of the patient so desire, a jury of six responsible persons shall be impaneled by the state board of trustees. The jury or commission, as the case may be, shall report its findings to the state board of trustees, and if the report states that the patient is suffering from a definite psychosis and should be committed to the state hospital, this report shall be sufficient for the commitment of the patient, subject to the right of appeal provided in the statutes.

The architects of the new clinic were Brown and Whiteside, Wilmington, Del., and the consultant, T. B. Kidner, New York City.

How New York's Homes for Aged Care for Chronic Sick

Without their realizing it or intending it, the privately supported homes for the aged in New York City are taking care of approximately half of all the dependent aged chronically ill persons in the city, it is shown in a report published recently by the Welfare Council of New York City.

The report is based on the first completed section of a study of New York's whole problem of caring for the chronically sick which the research bureau of the Welfare Council has had under way for some time. Other sections of the report will describe the manner in which chronically ill persons are cared for by municipal institutions, by the visiting nurse services and by family service societies. The investigation was undertaken at the request of four groups of agencies within the council, including some 200 organizations. The study was under the direction of Mary C. Jarrett, who also wrote the report, with the assistance of a medical advisory committee of which Dr. Ernst P. Boas was chairman.

Pointing out that more than 2,800 chronically ill guests were reported in these homes, the Welfare Council reports say: "It is evident that the private homes for the aged have already assumed a large part of the community's responsibility for caring for the chronically sick, although it has not, as a rule, been their policy to do so."

"Although most of the homes for the aged require that guests shall be free from incapacitating disease and that they shall be able to get about and care for themselves when admitted," the report continues, "nearly half (48 per cent) of all the guests in the sixty homes for the aged covered by this study were found to be chronically ill. Although persons with mental diseases are not accepted by homes for the aged with the exception of one home and are usually transferred to a hospital if the condition arises after admission, there were in these homes at the time of this study 405 persons reported to be suffering from some mental disorder."

Giving the Aged a Chance to Work

In this connection, the report says, there has not until recently been sufficient recognition of the importance of giving old men and women the opportunity to do some work. No one of the sixty homes for the aged visited had any systematic plan for occupational work for its residents. The report says, however, that an experiment under the auspices of the section of the Welfare Council on the care of the aged, is now being conducted, financed jointly by several interested homes, to demonstrate the feasibility of teaching and assisting the old people in these homes to make useful things and then to sell them.

Over a third of all chronically ill guests in homes for the aged, the Welfare Council's report says, were receiving unsuitable care, in most cases, however, because of the lack of facilities within the home to provide for the needs of persons with chronic infirmities. The report predicts that the demands on these homes for the care of chronically ill persons will be increased in the near future as a result of the recently enacted old age pension law. It is expected that because of this state aid to dependent aged men and women over seventy years, a larger proportion of able-bodied aged will hereafter live outside of institutions and that among those coming to homes for the aged in the future will be a larger proportion of the chronically sick.

How a Large County Hospital Runs Its Dietary Department

By MILLIE E. KALSEM
Chief Dietitian, Cook County School of Nursing, Chicago

A department devoted to the discussion of problems confronting both the dietitian and the administrator, conducted by Anna E. Boller, Central Free Dispensary at Rush Medical College, Chicago.

THE primary responsibility of a hospital dietary department is to ensure the serving of all prescribed diets accurately, with food of good quality that is prepared carefully and served attractively.

At the Cook County Hospital, Chicago, the dietary department is responsible only for special or therapeutic diets and not for general diets. As a result, the percentage of special diets is much greater than in hospitals in which the entire food service is under the supervision and direction of a trained dietary staff. For the past year Cook County Hospital has served a daily average of from 550 to 630 special diets, which represents approximately 25 per cent of all the diets served. These diets include all liquid, soft and high caloric diets, in addition to strictly therapeutic diets, such as nephritic, diabetic, ulcer, secondary and pernicious anemia, low fat, high carbohydrate, colitis and bland diets. In addition to these there are a number of diets for the vitamin deficiency diseases, pellagra and scurvy, that are of comparatively rare occurrence in a smaller hospital population. During the past months there have been from fifty to 100 diets that have been termed high vitamin diets, but they are in reality only optimal normal diets for adults who have shown a high degree of malnutrition. During the past year the per capita cost of raw food for all diets served in the hospital was thirty cents a day.

The foodstuffs consumed in the hospital are purchased by the bureau of public welfare of Cook County. All perishable fruits and vegetables are delivered semiweekly, while staple groceries and meats are usually delivered weekly. Fresh fruits, vegetables and meats are requisitioned daily by the department from a central storeroom.

The food for all special or therapeutic diets is prepared in the main diet kitchen. A menu which consists of broth, soup, meat, potatoes, salad, vegetable and dessert for dinner and of a cream soup, a hot dish and a dessert for the evening meal, is made weekly. This forms the basis for the planning of all special diets served by the department. This menu is varied either by additions or subtractions to adapt the diets to the dietary needs of the individual. The weighed diets used for diabetics and nephritics, and all other quantitative diets are, of course, taken care of separately. In this case the diet prescription is ordered by the physician and calculated by the dietitian. The dietitian interviews each patient for whom a quantitative diet is ordered before she begins to calculate the diet. This saves time for the department since it eliminates the need of refiguring diets and it brings about a closer cooperation from the patient when the diet is explained to him, and when his likes and dislikes within certain limits are considered. He will then adjust himself to the omission of certain foods from his diet which otherwise might have displeased and disappointed him had he not understood.

Delivering and Serving the Meals

The largest number of diets are served to the patients in the general hospital and the men's medical building; a smaller number are sent to the tuberculosis, the psychopathic and the contagious hospitals. Each ward in the general hospital and in the men's medical building has a serving kitchen where the food is reheated and served to the patient. The diet kitchens are arranged one above the other so that there is one electric dumb-waiter for each wing. A porter is responsible for transport-

ing the food from the diet kitchen to the loading station on the first floor whence it is distributed to the wards by means of dumb-waiters.

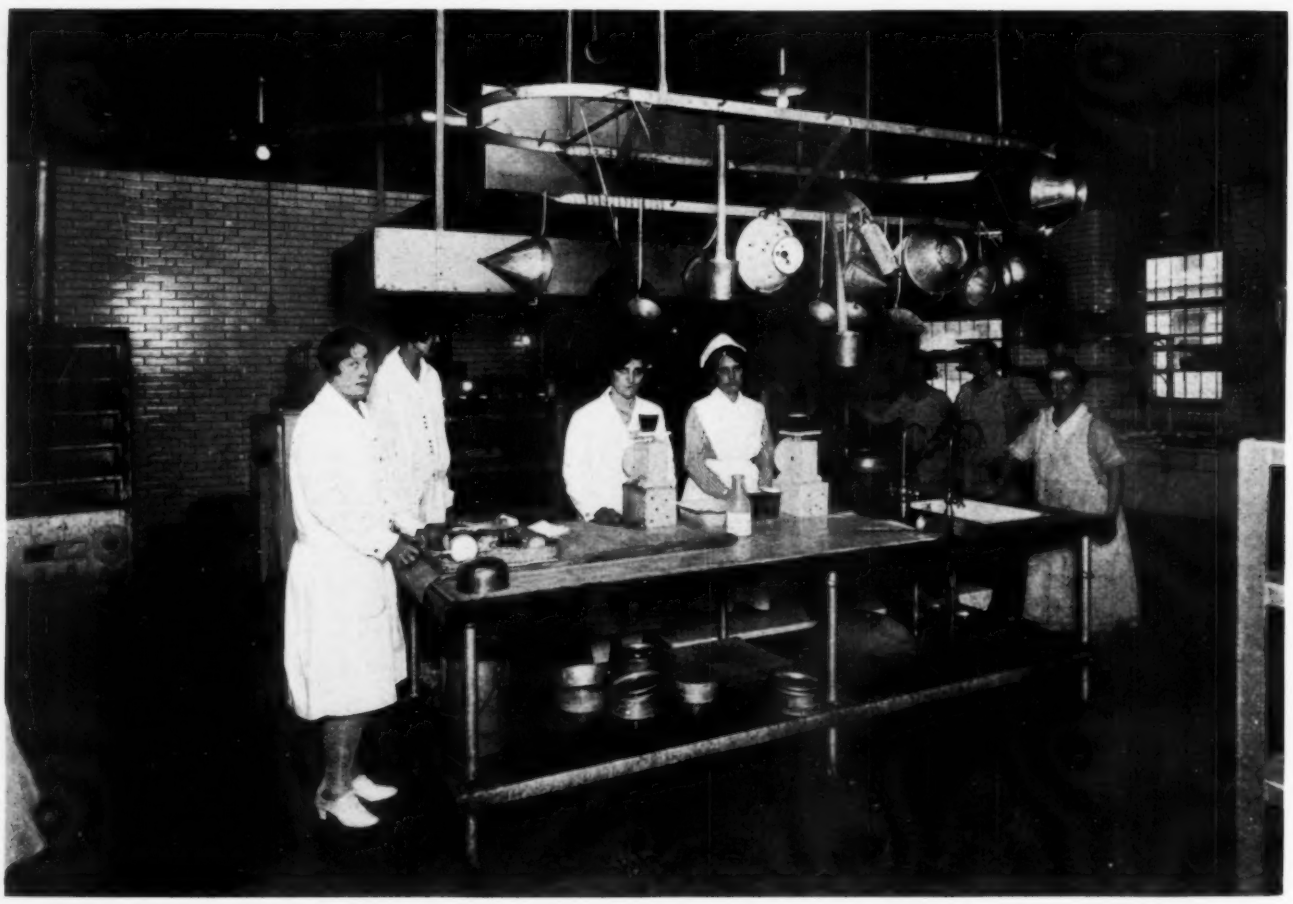
Three deliveries of food are sent to the wards daily. All the cold foods are sent out between nine and ten o'clock in the morning. The first delivery of hot food to be served at dinner leaves the diet kitchen about ten-thirty and the last at eleven. The noon meal is served from eleven to twelve o'clock. One delivery of food is made in the afternoon for the evening meal, which is served from four-thirty to five-thirty o'clock. In one of the 100-bed medical wards an electric food cart has been used for the serving of all special diets for the past nine months. This medical ward averages between sixty and seventy special diets daily, a large enough number to make a food cart an efficiency measure in preserving the quality of food, in saving time and labor and in lowering food waste.

Food Cart Aids Prompt Serving

The heated filled food cart is wheeled into the ward at serving time. A staff dietitian and two attendants assume the responsibility for serving the diets. The dietitian checks each tray before it is served to the patient. All diets are served in less than half an hour, which is approximately half the time required formerly without the aid of the heated cart. This method of serving has proved to be so satisfactory that the hospital hopes ultimately to install the same type of service in all of the larger medical wards when the staff can be enlarged sufficiently to give adequate supervision for this kind of service.

How the Children Are Fed

At the children's hospital there is the milk laboratory in addition to the kitchen for the preparation of the food for older children. An assistant dietitian is in charge of the supervision of the milk laboratory and diet kitchen. From fifty to seventy feedings are prepared daily in the milk laboratory and poured into individual nursing bottles, averaging six feedings each. All infant feedings are divided into two classes to simplify preparation. One group of feedings is known as the sweet feedings because they are prepared with sweet milk, the other group is known as the sour feedings because they are made of acidified or cultured milk. The former averages from forty-three to fifty-five, and the latter from six to seventeen. Often the cod liver oil, orange juice and egg yolk



In the well equipped diet kitchen at Cook County General Hospital, Chicago, the dietitian and her assistants plan and prepare food for all special and therapeutic diets.

Here is a view of the milk laboratory of Cook County Children's Hospital, Chicago, where from fifty to seventy special feedings are prepared daily.

are added to the formula as it is prepared. The first supplementary foods given to the older infants such as vegetable purées, cereals, fruit purées, mashed potatoes and vegetable soups are prepared in a small kitchen supplementary to the milk laboratory and sent to the various wards of the children's hospital.

The food for the regular diets and also for special diets is prepared in the diet kitchen. In the children's hospital there are from 120 to 160 patients on regular diets and from forty to fifty on special diets in addition to the diets in the general hospital. The majority of the therapeutic diets are for the tuberculous children but there are a number of diets, such as ketogenic, nephritic, diabetic, diarrhoea and anemic, together with the regular high caloric diets, which are served to the malnourished children. The food for these diets is delivered to the ward diet kitchens where it is reheated and served to the patients.

The dietary department also assumes the responsibility for the management of the out-patient diabetic clinic; a dietitian is also present at the gastric ulcer and cardiac clinic to give any dietary instruction necessary. These clinics are maintained only for former hospital patients.

The graduate personnel of the dietary department numbers six graduate dietitians, the chief dietitian in charge of the department and five assistants. One assistant is assigned to the supervision of the milk laboratory and diet kitchen of the children's hospital; a second is assistant in the main diet kitchen; two others are assigned to supervise the serving of special diets on the wards of the main hospital; of these, one is particularly responsible for the care and teaching of diabetics, and the other is responsible for the supervision of all other special diets; the fifth assistant is assigned to the medical ward where the food cart that has been described is used. This assistant has been able to supervise the diet service more closely and to supervise and teach both the student dietitian and the student nurse the application of the principles of hospital food service to patients.

The teaching of student dietitians and student nurses constitutes another of the major activities of the department. An eight months' course in hospital dietetics is offered to student dietitians.

During the course of training the student receives supervised practice in all the activities of the department. With such a large clinical field from which to draw, the student has ample opportunity to gain experience in the planning of diets for all types of cases. Since the number of special diets served daily in this hospital is larger than the total number of regular and special diets found in many smaller hospitals, the student is provided an excellent field in which to develop potential administrative qualities.

Training Future Dietitians

The student receives her preliminary training in the main diet kitchen where she becomes familiar with the general routine hospital diets. Following this training, she is taught to calculate a quantitative diet and to plan other therapeutic diets. After the satisfactory completion of this service she is assigned to one of the medical wards where she assumes the responsibility, under supervision, for serving the diets directly to the patients. It is at this point that the student makes the contact with the patient that is so important in impressing upon her the necessity for upholding the high standards of food service she has been taught throughout her college curriculum and continued during her hospital training.

Up until this time the student has worked under the close supervision of a staff dietitian. During a period in the latter half of her course she is assigned to a medical unit where she assumes the full responsibility for the supervision of the diet service on the wards. This cooperative practice is especially helpful in gaining experience in working with others in the administration of ward activities.

The same general plan is followed in the organization of teaching the students at the children's hospital.

The kitchen and dining room at the nurses' home, which serve more than 800 persons daily, offer a good teaching field for instruction in the management and organization of a kitchen and dining room. Afternoon teas and special dinners provide experience in the more elaborate type of food service. The dietitian in charge of the food service at the nurses' home is responsible for the purchasing of all foodstuffs. The students visit the markets with her and are taught what principles to observe in buying these commodities. Part of the required course includes instruction in food accounting, calculation of per capita cost and compiling monthly reports.

Another important feature of the course offered to student dietitians is the affiliation with a private hospital in Chicago, with a capacity of approximately 200 beds. This affiliation enables us to give our students experience in all phases of hospital dietary management so that when they complete the course they are qualified to accept a position as dietitian in any type of hospital. The student is required to register for a course of eighteen hours in diet therapy and eighteen hours in institutional management. In addition to these lectures she is required to attend lectures in diet and disease and pediatrics given by members of the attending medical staff. Experience in the out-patient clinics and in the social service department helps to give her an insight into the home environment of the patient, which is of inestimable value in planning diets for patients to follow after they leave the hospital.

The training and practice given to the student nurse are similar to the preliminary training and practice given to the student dietitian. The student nurse spends six weeks of her cooperative practice in the dietetic department. Four of the weeks are spent in the main diet kitchen and a serving kitchen on one of the medical wards and two weeks in the children's hospital, one week in the milk laboratory and one in the diet kitchen. The student nurse is required to complete her course of thirty-six lecture hours and forty-eight hours of laboratory in foods and nutrition before she can be assigned to cooperative practice in the dietetic department. The course in foods and nutrition is approved for a major credit by the department of home economics, University of Chicago. During her period of work in the diet kitchens the student nurse is given a course of lectures in diet and disease by a competent physician.

A Film That Shows Standards for Tray and Dining Room Service

"Standards for Tray and Dining Room Service" is the title of a film produced under the supervision of Helen E. Gilson, director of the dietary department, Pennsylvania Hospital, Philadelphia, and now available to professional groups at a rental of $25, plus carrying charges.

This film was first shown at the meeting of the American Dietetic Association in Toronto last year and since that time it has been used by teaching groups such as Institutional Management, Teachers College, Columbia University; New York State Dietetic Association, Grand Rapids Dietetic Association, Grand Rapids, Mich., and the Hospital Association of Pennsylvania as well as other groups.

The film is two reels long and requires a half hour to show.

Practical Administrative Problems:

Why Hospital Surgical Practice Should Be Standardized

By JOSEPH C. DOANE, M.D.
Medical Director, Jewish Hospital, Philadelphia

ON numerous occasions statements have been made in THE MODERN HOSPITAL relative to the total absence of any uniformity in the procedures employed by hospitals in the routine medical and surgical care of patients. From the most simple to the most complicated, from the mere janitorial to the most highly scientific procedures, there is an almost total absence of any acceptance by the hospital field of a standardized technique.

Is Standardization Possible?

Perhaps the chief reason underlying this situation is a lack of understanding as to what is safest and most efficient. Perhaps medical and surgical technique is not subject to standardization. No doubt the fact that hospital administration is a long way from being universally recognized as a profession has some bearing on the question. It may be that until superintendents themselves more generally approach a common level in training and experience their acts will remain as unstandardized as their technical preparedness for this work.

It has been said that standardization of hospital procedures is impossible because of differences in types of administration, in clientele, in location and in types of architecture. It has been claimed by many that the technique involving operative procedures is such an individual matter that to endeavor to establish methods by which all should perform one type of work would be to deprive the individual of his professional prerogatives—to transform him from a thinking being into an automaton.

True, only the broadest of rules may be laid down for diagnosing and treating disease. It is also true that once a physician has become convinced that a certain type of instrument or antiseptic, a definite method of sterilization or a particular manner of performing a dressing is the most trustworthy, it is difficult to induce him to accept any other plan. Nevertheless, if one were able to estimate the added expense in time and money of maintaining many different techniques of sterilization, ways of preparing the patient for operation, or performing dressings or of carrying out the many other daily procedures, the aggregate unnecessary outlay of money would astonish even the most skeptical.

In a previous article[1] an endeavor was made to depict the chaotic condition in which the institutions in the field find themselves in reference to the matter of standardizing these common practices. It was stated that many operating room supervisors maintain a book in which is set down for their own guidance the exact size of the sponges or the specific method of donning cap, gown and gloves, the type of needle or even the method of draping the patient that each of the surgeons whom they must serve most prefers—*reductio ad absurdum* certainly. There appears to be no reason why any capable nurse should be forced to spend so much time catering to the unimportant details incident to pleasing any individual surgeon when her efforts are so much needed in supervising the more important details of safeguarding the patient's life.

How Operative Preparation Varies

There are as many methods of preparing a patient for operation in some hospitals as there are surgeons. In some institutions all patients are made ready for operation on the day prior to surgical treatment, only the final sterilization of the skin being performed in the operating room. In some hospitals the day surgical nurse performs this work, in others, the night nurse. When the latter system is in use, it is not unusual for a patient to be kept awake most of the night prior to the operation because of the shaving, scrubbing, application of sterile dressings and administration of enemas required. Why this night of all nights should thus be made hideous for the patient is rightfully a mystery to the public.

In some instances, all operations for the following day must be scheduled prior to 3 p.m. and in others prior to 6 p.m. In many institutions, as

[1] Doane, Joseph C., The Need and Nature of a Surgical Standing Order Book, THE MODERN HOSPITAL, Nov., 1930, p. 85.

has been noted, the field of operation is shaved and scrubbed and sterile dressings applied in the ward and an antiseptic employed on the skin in the operating room. In others, no preparation is given in the ward and an antiseptic is used for the sterilization of the skin after the patient has been placed on the operating table.

Now there surely must be some procedure of choice that is safe, of the greatest convenience to the surgeon, of the least annoyance to the patient, and of minimum expense in time and money to the hospital. If this is the case, should not surgeons and hospitals accept a standard comprising at least the basic details of this type of work? Practical business reasoning indicates that this should be possible.

Satisfying Individual Preferences

It is surprising how the preferences of surgeons vary in regard to such common practices as dressing for an operation. Nevertheless, it is the usual experience of operating room supervisors that some surgeons desire their gowns held for them, others refuse to allow nurses to unwrap sterile packages, some prefer caps of one design and some of another, some dislike gloves with powder and some will accept no other. Here again there must be a method of choice. There will be those who decry the necessity of standardization in such matters, and yet it is not difficult to prove that to waste the time of hospital employees is definitely to waste money. It seems reasonable to question whether it is a mark of scientific skill, of an egocentric personality or of just a fine thoughtfulness for the good of the patient that prompts one individual to endeavor to be different from all others.

Only a few years ago complicated processes were in vogue for the sterilization of the hands and arms of the operator. The use of full-length arm basins containing solutions of potassium permanganate, alcohol, or some mild fat solvent, of scrubbings and immersions, all these preceded and have been replaced by the simplified though safe methods of to-day.

A glance at the present methods of sterilizing gauze and other operating room material is enlightening. In any group of a dozen or more hospitals, one is likely to find that such a simple matter as the sterilization of gloves has as many variations as the number of institutions being studied. The methods of sterilizing control employed, the use of indicators or gauges and frequently the blind trust in the efficacy of steam all cry aloud for some authoritative statement that can be easily proved and hence acceptable to hospitals generally. In some operating rooms the sheets employed for draping are gray, in others green and in many white. Which is the most acceptable and practicable? If there is no choice, why should not one of these colors be universally employed? Sponges in many instances are of all kinds, shapes and textures.

The foregoing statements have been made without any endeavor to detract one iota from the splendid service the surgeon renders to the hospital, or even to attempt to suggest the best procedures to be employed. They have been set down in order to present to the hospital field as forcefully as possible the chaotic and confused situation that exists in the surgical and operating room departments. The same situation is true, in perhaps a lesser degree, in every other department of the hospital. It is to be found in the janitorial service, in the medical wards and in the out-patient department. Many hospitals seem inclined to be content with their own practices, in many instances generation after generation accepting the methods of performing work that have been handed down by their predecessors. Standardization of institutional technique cannot be discussed intelligently therefore, unless some consideration is given to the methods by which such procedures are brought into existence.

It has been intimated that the source of many of our common practices may be found in the local traditions surrounding the hospital. It has been said that the common practices of to-day become the traditions of to-morrow. A strong medical personality can spend only a few years in the hospital's service and the method by which he performed his work becomes so built into the institutional practice of his specialty that it is likely to continue there for many years.

The Dangers of Individualism

Staff physicians and administrators of hospitals, for that matter, are often too strongly individualistic. A tradition has therefore become implanted in the hospital that the surgeon or internist may achieve such ends in any way he likes. Although this attitude is not unreasonable, yet when this generosity on the part of the hospital in providing a great variety of supplies and in requiring nurses to spend unnecessary time in serving the surgeon reaches a point at which hospital expenditures are strongly affected, it is time carefully to scrutinize the necessity for such a policy on the part of both the hospital and the surgeon. It must be granted, moreover, that the advantage or disadvantage of employing certain techniques and drugs is difficult to prove. There are those who believe that a particular type of digitalis has more life saving properties than any other. This attitude, however,

must remain one that represents the belief of an individual and not one that always is capable of definite proof.

Many hospitals, therefore, have been unable to make any attempt at standardizing institutional procedures. They have been afraid to undertake such a step because of the likelihood of arousing opposition on the part of those most affected. They have been content to continue along lines of least resistance, not only from the standpoint of rules and regulations governing professional procedures but even of rules affecting the intramural conduct of professional nursing and of their own staffs.

A common method of preparing systems of technique is to request the visiting staff to undertake this work. Difficulties immediately develop because of the strong tendency to individual thinking and acting on the part of members of the staff. There are those who believe that certain methods represent the safest type of treatment for the patient and they are to be respected and honored for adhering to such a belief. There are others, perhaps with broader vision, who seem able to accomplish creditable results with less complicated instruments and less detailed technique. Whether or not a staff is permitted to prepare its own rules or to attempt standardization of its own practices, the board of trustees must ratify such regulations before they can become fully effective.

Needless Expense Is Involved

Specialization in medical and surgical work requires a great variety of carefully manufactured, expensive instruments. Hospital administrators should exercise understanding when it comes to providing instruments for these specialty groups, and yet one is inclined to wonder why one physician requires so many instruments, while another is apparently able to accomplish splendid work with much simpler and less expensive tools. The man who can perform good surgery with the simplest set of instruments is a great asset to any institution. The World War demonstrated that the finest of emergency work can be done with few instruments. It must be granted, moreover, that the basic laws of surgery do not designate the exact curve of the needle or the length of the hemostat handle and that the thousand and one different types of instruments, many bearing the name of their originator, are but the expression of what has appeared to one individual as the most convenient and effective instrument to employ.

In these days of economic stress the hospital is being driven to adopt every expedient in an endeavor to lessen the cost of its service. While a comparison with the practices of the commercial world is hardly applicable, it may be stated that no manufacturing concern could long exist in the competitive field unless it made an effort to learn the best and cheapest method of performing its work and thus could market the finished product with the least expenditure of time and money. Thoughtful hospital executives are endeavoring to save every hour of their employees' time and to avoid the expenditure of every unnecessary dollar. No one can estimate the added expense to the hospital or the degree of lessened efficiency in service to the patient that is represented by the conditions described.

Subsequent articles will set forth the opinions of representative hospital administrators on these matters. It will not be possible always to describe the method that should be employed because here again enter the differences of opinion dependent on the human equation. It is hoped, however, to describe the method most commonly employed and in this way to reflect the opinion of the field.

How American and British Hospitals Differ

The two main essentials in which the American hospital system differs from the British are (1) the nonexistence of nursing homes and (2) the high proportion of maintenance paying patients in hospitals and the considerably reduced number of charity patients, Dr. George Armitage, Leeds, England, pointed out in an address on "The American Hospital System" before the Yorkshire branch of the Incorporated Association of Hospital Officers.

Doctor Armitage spent ten months in residence at the Peter Bent Brigham Hospital, Boston, and visited other famous hospitals while he was in the United States. Consequently his comparisons are made from actual observation and not merely from hearsay.

In America both private and charity patients benefit equally, he said. In England, the charity patients are well cared for and receive all the benefits of the scientific aids to investigation, diagnosis, treatment and convalescence, whereas the private patients do not. A nursing home with a resident medical man, or an x-ray plant on the premises is a rarity.

"I am convinced," said Doctor Armitage, "that our present voluntary system, separate and distinct from the hospitals under local authorities for public patients, and our private nursing homes for paying patients, constitute a hospital policy which, unfortunately for the community, is not dead, but most certainly should be."

Editorials

Private Group Clinics and the Hospital

THE Committee on the Cost of Medical Care is due the hearty gratitude not only of the medical profession and the hospital field, but also of the citizenry as a whole for the splendid educational work it has been performing for many months. Facts and more facts, testimonies from physicians and hospitals from the four corners of the country were sought and obtained. Its booklets published from time to time are both informative and interesting. To collect facts and even to arrange them in orderly classes and columns is the simplest of tasks, however, compared with the sane determination of trends and meanings and the formation of safe judgments from such trends. For one experience represents but a straw in a maelstrom of cross currents of public and professional opinion.

A recent bulletin concerns itself with private group clinics, which are quite the vogue in certain localities and are looked upon with suspicion in others. Whether the private clinic represents a cooperative stock company or the venture of one physician with a bent for business, it is similar both in organization and personnel to a well run hospital out-patient department. It is, of course, conducted for profit. In smaller communities where such an organization exists, the out-patient department of the local hospital is likely to serve comparatively few patients. In this respect, the hospital is certainly affected by the presence of a clinic. When hospital beds are required at the conclusion of the diagnostic study, the local hospital is often used for this purpose unless the clinic has gone into the business of conducting such an institution. Approximately 25 per cent of 60,000 patients studied by a certain group of clinics in 1929 were hospitalized, many for the performance of major surgery. On the other hand, the presence in such clinics of x-ray and clinical laboratories and the various physical therapy adjuncts to medical treatment must of necessity detract from the income.

Of greater importance to the patient, and hence to the community, is the grade of service and ethics practiced in the average group clinic. On the whole, the patient receives effective care and is, moreover, economically safe in the hands of the clinic physician. Hospitals, however, certainly cannot require the same type and extent of loyalty and patronage of group physicians as they do of the usual community practitioners. The patient who is able to pay without a doubt receives adequate medical attention here. The group clinic has but little contribution to make to the indigent class. Because of this fact, it deserves neither community contributions nor exemption from the same type of competition that other enterprises conducted for profit expect to encounter.

Meet the Chief Surgeon

ELSEWHERE in this issue is to be found a discussion of the need for standardization of some of the common procedures practiced in the surgical department of the hospital.

Such a step, which on first thought appears an act of wisdom, seems to present but minor difficulties in effecting its accomplishment until one meets the chief surgeon and his colleagues. Human personalities do not easily lend themselves to standardization. The surgeon is an individualist. He clings tenaciously to his own particular way of performing his work. He is likely to resent any suggestion of a change no matter how trivial. He believes thoroughly that his way is preferable. It is little wonder, therefore, that there are almost as many methods of clothing a surgeon preparatory to an operation as there are hospitals. But the difficulties sure to be encountered need not discourage an attempt at standardization. Both institutional economy and efficiency demand that the effort be made.

For How Long Is a Room Endowed?

THOSE institutions that are finding themselves embarrassed by the maintenance of a large number of endowed rooms will derive little comfort from a decision recently handed down by a distinguished Eastern common pleas judge.

A hospital was endeavoring to be released from an endowment contract it had acquired during a process of amalgamation with another institution. This obligation was in the form of a promise to supply to a nursing alumni group 365 days of hospital service through the use of one endowed bed. The institution contended that the contract existing between the nursing alumni and the absorbed hospital became null and void at the time the latter ceased to accept patients for care and treatment. It also held that the interest on the sum of $5,000 was inadequate to provide the service the agreement called for. This statement was freely ad-

mitted as true by the court. Nevertheless, the court ruled that the defendant, in amalgamating with the second institution, assumed the responsibility of meeting all the liabilities of that institution and hence must continue to provide 365 days of medical care each year to members of the alumni association instituting the suit.

This legal opinion is likely to have far-reaching effects. Not only should hospitals no longer accept sums for the endowment of beds unless such sums are adequate, but institutions that are considering the possibility of amalgamating with others should certainly inform themselves fully concerning the number of endowed beds that are being carried. Such agreements are binding as long as the hospital exists and are often undertaken too lightly.

Psychiatric Clinics as an Aid in Preventive Medicine

GENERAL hospitals may well take a lesson from the work that is being done in all parts of the country by the hospitals for the mentally ill. Nearly every institution that is state supported is launching a program of public relations and of public work that would do credit to the general hospitals of the country.

A few short years ago the state hospital for the mentally ill was referred to as the insane asylum and was a thing to be shunned. Patients entering these institutions never returned to society or if they did they were always regarded with suspicion and the sane citizens felt that the ex-patients must be constantly watched for new and perhaps dangerous outbreaks of their mental maladies. Patients in some institutions were treated more like prisoners.

All of this has been changed, bars have been taken from most of the windows in state hospitals, patients are housed and treated with consideration, farms and workshops have been established so that those who can work will not be given to introspection and morbidity, picnics are held every day in nice weather for those physically well enough to enjoy the outdoors, occupational therapy has taken on a new meaning and has proved its worth, cures are daily being effected and by the great advances made in psychiatry, patients are often returned to their communities as producing members of society.

But the administrators of these institutions were unwilling to rest on these laurels and have gone into a program of preventive medicine on a much more thorough scale than the administrators of general hospitals. This is partially explained because they have had the backing of the state and also because there is an active mental hygiene society that helps in every way possible. With these aids the mental hospitals have established psychiatric clinics in various centers where borderline cases can be examined and mental illness often checked before it reaches the stage when hospitalization is necessary. Psychiatric clinics were little heard of five or six years ago but their popularity has increased until now some institutions have a regular traveling clinic which comes to the community under the auspices of a local organization and functions not only as a clinic but also as a public relations bureau. Lectures, demonstrations and newspaper publicity make known the work that the hospital is doing so that the public is rapidly coming to view the old "insane asylum" not with alarm but as a worthy institution that is a potent force in the health and happiness of every city.

If general hospitals supported or partially supported by the county or city would carry on the same type of work in preventive medicine for physical ills great strides would be made in the health of the people. If the psychiatrists can prove to the people that mental ills are in many cases preventable it is a certainty that those in charge of hospitals for physical ills could demonstrate that sickness can often be prevented.

What Is Fee Splitting?

FEE splitting is looked upon as one of the cardinal sins of which unethical doctors may be guilty. It is frowned upon by medical and surgical associations everywhere. It is a practice considered definitely inimical to the best interests of the patient. For a physician to engage in this act, if he is detected, is sufficient to disbar him from practicing in the ethical well run hospital. "Why," remarks the uninformed person, "should it matter to the patient if the surgeon divides his fee with another? Is not the money his to do with as he wills?" And the scoffer ventures his opinion that such disapproval of an act that should only concern the doctor personally is but an example of the workings of an autocratic medical trust.

Fee splitting does concern the patient. By its practice patients may be bartered just as certainly as men buy or sell bags of grain or cords of wood. Under its nefarious influence, patients are likely to be referred to surgeons whose scientific ability is as questionable as are their ethics. The family physician who solicits or receives such ill-gotten gain betrays the trust of the patient for a few unclean

dollars and sells his birthright of public confidence.

Yet the practice of dividing fees is a difficult one to detect. Wisconsin has forbidden its practice under a penalty of fine and imprisonment. Aspiring yet unscrupulous young surgeons may practice their vice under the very eyes of upright colleagues and hospital administrators. Those who are *particeps criminis* certainly will not turn talebearers. Moreover, to camouflage fee splitting is a simple matter. Permitting the referring physician, although he may be possessed of no surgical ability, to assist at the operation and to charge a fee therefor and the granting of gratuities or special favors in some form or another are all methods of purchasing the favor of the surgeon's colleague.

Fee splitting is unworthy in the last degree of the medical profession because it is dangerous to the patient. No hospital that hopes to retain a high position of respect dares to harbor within its staff those whose greed for gold or whose thirst for prominence thus selfishly betrays the reason that motivates their professional existence.

Surgery and Tuberculosis

SCIENCE has waged few more effective wars than that carried on against tuberculosis. Since Koch described the organism he found teeming in the sputum of persons suffering with the disease, many weapons have been forged to circumscribe its deadly inroads on the health and happiness of society. Although certain morphologic and cultural characteristics of the tubercle bacillus have as yet prevented any development of a specific preventive or curative serum, yet improved living conditions, rest, good food and much sunlight have often, yet not frequently enough, built resistance where none existed.

In many hospitals the contribution surgery may render in the treatment of bone and particularly pulmonary tuberculosis has been largely overlooked. As a broken bone mends more quickly when motion is prevented, so does an infected lung more successfully wall off the invader by scar tissue when it is splinted by one of several surgical procedures. The surgeon not only is called upon to remove purulent material of tuberculous origin but also by incising nerves he halts diaphragmatic excursions, collapses diseased pulmonic areas by injecting air into the pleural sac and removes whole chest walls to bring about the healing of purulent pockets.

No hospital of size should be content until its physical and personnel equipment makes possible the modern surgical treatment of tuberculosis. The surgeon has thus provided another effective method of combating the plague misnamed "white."

Too Many Trophies

HOSPITAL trends of to-day seem to point toward a change in board policies affecting the number of staff positions that one physician may hold.

There was a time when the practice of collecting many staff positions was as common as that of gathering athletic or hunting trophies. To obtain a place on the staff of every institution in the community was considered by the physician a mark of scientific success and of having won personal popularity.

Hospitals are now discouraging this practice. Many institutions will not permit their staff physicians to hold more than one appointment. Others less rigidly limit these places. Particularly in these times of economic stress when private patient patronage is being so earnestly sought is this policy being more and more generally adopted. Moreover, it is questionable whether the holding of multiple staff positions is either financially or scientifically advantageous even to the physician himself. This statement is of course dependent on the existence of adequate ward and private room facilities in the hospital in which the surgeon or internist serves.

The day is not far distant when, by the agreement of institutions themselves, those physicians who seek hospital opportunities will be required to choose the institution in which they desire to work. The hospital board of trustees will then appoint those physicians who desire a staff position and who seem to possess qualities most advantageous to their institution. Too greatly divided loyalties appear advantageous neither to the hospital nor to the physician himself.

Alcohol and the Hospital

THE hospital, if it is a teaching institution, may purchase alcoholics at greatly reduced prices. In the minds of some persons, it is ethical, even if not legal, to endeavor to obtain from the hospital alcohol and whisky for beverage purposes. It is rumored that sometimes even careless board members request the executive to dispense stimulants on such gala occasions as the annual dinner given by the trustees to the staff. A diversion of alcohol from its use in the treatment of the sick under any guise and in any form is an illegal, immoral and despicable practice. If the hospital and its board and staff do not obey this law, who in the community is to set the example? There can be no evasion by the superintendent of his plain duty in this matter.

Ninety-Five Hospitals Added to Approved List This Year

ALTHOUGH the American College of Surgeons surveyed only 155 more hospitals of twenty-five beds and over this year than it did last year in its hospital standardization program, ninety-five, or one more than last year, were added to the approved list. Of an additional 309 surveyed last year, only ninety-four were approved.

The number of hospitals surveyed for the year ending October 1, 1931, totaled 3,319. Of this number, 2,158 were fully or conditionally approved—1,931 being fully approved, and 227 conditionally approved. The total bed capacity of the hospitals surveyed was 475,660, of which 410,786 were in hospitals approved by the College of Surgeons. During the year, estimating on a basis of a 65 per cent occupancy with a stay of twelve days, approximately 8,215,720 patients received 98,588,640 days' care in approved institutions.

The list of approved hospitals for the United States, Canada and other countries, as announced at the Hospital Standardization Conference in New York City, October 12 to 15, is presented here. "Conditionally Approved" hospitals are indicated by an asterisk that precedes the hospital's name.

Summary Statistics Showing Number and Percentage of Approved Hospitals

1. Hospitals of 100 beds and over:

Surveyed	1,479
Fully approved	1,321
Percentage fully approved	89.3
Conditionally approved	59
Percentage conditionally approved	4.0
Not approved	99
Percentage not approved	6.7
Total fully and conditionally approved	1,380
Total percentage fully and conditionally approved	93.3

2. Hospitals of 50 to 99 beds:

Surveyed	1,034
Fully approved	506
Percentage fully approved	48.9
Conditionally approved	119
Percentage conditionally approved	11.5
Not approved	409
Percentage not approved	39.6
Total fully and conditionally approved	625
Total percentage fully and conditionally approved	60.4

3. Hospitals of 25 to 49 beds:

Surveyed	806
Fully approved	104
Percentage fully approved	13.0
Conditionally approved	49
Percentage conditionally approved	6.0
Not approved	653
Percentage not approved	81.0
Total fully and conditionally approved	153
Total percentage fully and conditionally approved	18.9

4. Government Hospitals:

(a) Army:

Surveyed	5
Fully approved	5
Percentage fully approved	100.0

(b) Navy:

Surveyed	16
Fully approved	16
Percentage fully approved	100.0

(c) Public Health Service:

Surveyed	24
Fully approved	24
Percentage fully approved	100.0

(d) Veterans' Bureau:

Surveyed	64
Fully approved	64
Percentage fully approved	100.0

5. Other Countries:

Twenty-five hospitals of other countries have been awarded full approval, and are included in the List of Approved Hospitals for 1931.

Summary

Total surveyed	3,319
Total fully approved	1,931
Total percentage fully approved	58.2
Total conditionally approved	227
Total percentage conditionally approved	6.8
Total not approved	1,161
Total percentage not approved	35.0
Total fully and conditionally approved	2,158
Total percentage fully and conditionally approved:	
Hospitals 100 beds and over	93.3
Hospitals 50 beds and over	79.7
Hospitals 25 beds and over	65.0

ALABAMA

Name of Hospital and Location	Capacity
ANNISTON	
Garner Hospital	66
BESSEMER	
Bessemer General Hospital	85
BIRMINGHAM	
Birmingham Baptist Hospital	140
Children's Hospital	50
Hillman Hospital	340
Norwood Hospital	210
St. Vincent's Hospital	125
South Highlands Infirmary	137
DECATUR	
*Benevolent Society Hospital	40
DOTHAN	
Frasier-Ellis Hospital	81
Moody Hospital	100
FAIRFIELD	
Employees' Hospital of the Tennessee Coal, Iron and Railroad Company	310
GADSDEN	
Holy Name of Jesus Hospital	35
JASPER	
Walker County Hospital	50
MOBILE	
City Hospital	180
Mobile Infirmary	73
Providence Infirmary	100
United States Marine Hospital	90
MONTGOMERY	
*Montgomery Memorial Hospital	151
St. Margaret's Hospital	125
SELMA	
Alabama Baptist Hospital	73
Goldsby King Memorial Hospital	52
Vaughan Memorial Hospital	77
SYLACAUGA	
Drummond-Fraser Hospital	30
Sylacauga Infirmary	50
TUSKEGEE	
Veterans' Administration Hospital	747
TUSKEGEE INSTITUTE	
John A. Andrew Memorial Hospital	75

ARIZONA

BISBEE	
Calumet and Arizona Hospital	51
Copper Queen Hospital	43
GANADO	
*Sage Memorial Hospital	85
GLOBE	
Gila County Hospital	65
JEROME	
United Verde Copper Company Hospital	56
MIAMI	
Miami-Inspiration Hospital	44
PHOENIX	
Good Samaritan Hospital	117
St. Joseph's Hospital	165
PRESCOTT	
Mercy Hospital	43
TUCSON	
St. Mary's Hospital and Sanatorium	120
Southern Methodist Hospital and Sanatorium	125
Veterans' Administration Hospital	261
WHIPPLE BARRACKS	
Veterans' Administration Hospital	600

ARKANSAS

EL DORADO	
*Henry C. Rosamond Memorial Hospital	55
*Warner Brown Hospital	75
FAYETTEVILLE	
Fayetteville City Hospital	61
FORT SMITH	
St. Edward's Mercy Hospital	115
*St. John's Hospital	55
Sparks Memorial Hospital	100
HELENA	
*Helena Hospital	40
HOPE	
Josephine Hospital	25
HOT SPRINGS	
Leo N. Levi Memorial Hospital	70
St. Joseph's Hospital	158
JONESBORO	
St. Bernard's Hospital	108
LITTLE ROCK	
Arkansas Children's Hospital	76
Baptist State Hospital	300
Little Rock General Hospital	140
Missouri Pacific Hospital	150
St. Vincent's Infirmary	150
Trinity Hospital	50
NORTH LITTLE ROCK	
Veterans' Administration Hospital	750
TEXARKANA	
Michael Meagher Memorial Hospital	75
St. Louis Southwestern Hospital	150

CALIFORNIA

ALAMEDA	
*Alameda Sanatorium on the South Shore	113
ALHAMBRA	
Alhambra Hospital	50
ARLINGTON	
Riverside County Hospital	275
BAKERSFIELD	
Mercy Hospital	84
BERKELEY	
Alta Bates Hospital	136
Ernest V. Cowell Memorial Hospital, University of California	100
BURBANK	
Burbank Hospital	62
COMPTON	
Compton Sanitarium and Las Campanas Hospital	36
FORT BRAGG	
Redwood Coast Hospital	31
FRENCH CAMP	
*San Joaquin General Hospital	420
FRESNO	
General Hospital of Fresno County	375
*St. Agnes Hospital	94
GLENDALE	
Glendale Sanitarium and Hospital	274
Physicians and Surgeons Hospital	88
LA JOLLA	
Scripps Memorial Hospital	50
LIVERMORE	
Veterans' Administration Hospital	318
LOMA LINDA	
Loma Linda Sanitarium and Hospital	206
LONG BEACH	
Harriman Jones Clinic and Hospital	25
Long Beach Community Hospital	120
St. Mary's Long Beach Hospital	70
Seaside Hospital	300
LOS ANGELES	
Angelus Hospital	150
California Hospital	307
Cedars of Lebanon Hospital	250
Children's Hospital	230
French Hospital	102
Golden State Hospital	75
Hollywood Clara Barton Mem. Hosp.	285
Hospital of the Good Samaritan	410
Methodist Hospital of Southern California	217
Orthopedic Hospital	85
Queen of the Angels Hospital	140
St. Vincent's Hospital	248
Santa Fe Coast Lines Hospital	150
Veterans' Administration Hospital	862
White Memorial Hospital	141
MARE ISLAND	
United States Naval Hospital	721
MONTEREY	
*Monterey Hospital	44
NATIONAL CITY	
Paradise Valley Sanitarium and Hospital	108
OAKLAND	
Children's Hospital of the East Bay	80
Fabiola Hospital	150
Highland Hospital of Alameda County	456
Peralta Hospital	150
Providence Hospital	242
Samuel Merritt Hospital	169
ORANGE	
Orange County General Hospital	271
St. Joseph Hospital	118
OXNARD	
St. John's Hospital	62
PALO ALTO	
*Palo Alto Hospital	42
Veterans' Administration Hospital	1010
PASADENA	
Pasadena Hospital	224
POMONA	
Pomona Valley Community Hospital	100
RIVERSIDE	
Riverside Community Hospital	80
ROSS	
Ross General Hospital	82
SACRAMENTO	
Mater Misericordiae Hospital	174
Sacramento Hospital	475
Sutter Hospital	224
SAN BERNARDINO	
San Bernardino County Hospital	315
SAN DIEGO	
Mercy Hospital	325
San Diego County General Hospital	632
United States Naval Hospital	863
SAN FERNANDO	
Veterans' Administration Hospital	230
SAN FRANCISCO	
Franklin Hospital	247
French Hospital	220
Hospital for Children	314
Letterman General Hospital	1016
Mary's Help Hospital	160
Mount Zion Hospital	198
St. Francis Hospital	356
St. Joseph's Hospital	239
St. Luke's Hospital	226
St. Mary's Hospital	365
San Francisco Hospital	1204
Shriners' Hospital for Crippled Children	60
Southern Pacific General Hospital	324
Stanford University Hospitals	334
United States Marine Hospital	320
University of California Hospitals	287
SANITARIUM	
St. Helena Sanitarium and Hospital	146
SAN JOSE	
O'Connor Sanitarium	125
San Jose Hospital	121
Santa Clara County Hospital	490
SAN LEANDRO	
Fairmont Hospital of Alameda County	750
SAN MATEO	
Community Hospital of San Mateo County	106
Mills Memorial Hospital	150
SAN PEDRO	
San Pedro General Hospital	110
United States Naval Hospital Ship Relief	317
SANTA BARBARA	
St. Francis Hospital	100
Santa Barbara Cottage Hospital	176
Santa Barbara General Hospital	175
SANTA MONICA	
Santa Monica Hospital	106
STOCKTON	
St. Joseph's Home and Hospital	141
TORRANCE	
Jared Sidney Torrance Memorial Hospital	50
VENTURA	
Big Sisters Hospital	46
VETERANS HOME	
Veterans Home of California	160
WESTWOOD	
*Westwood Hospital	100
WOODLAND	
Woodland Clinic Hospital	130

COLORADO

BOULDER	
Boulder-Colorado Sanitarium	120
Community Hospital	60
COLORADO SPRINGS	
Beth-El General Hospital	100
Cragmor Sanatorium	150
Glockner Sanatorium and Hospital	225
National Methodist Episcopal Sanatorium	70
St. Francis Hospital	154
DENVER	
Agnes Memorial Sanatorium	158
Beth Israel Hospital	67
Children's Hospital	175
Denver General Hospital	515
Fitzsimons General Hospital	1832
Mercy Hospital	190
National Jewish Hospital	270
*Porter Sanitarium and Hospital	62
Presbyterian Hospital of Colorado	175
St. Anthony's Hospital	200
St. Joseph's Hospital	249
St. Luke's Hospital	249
Sanatorium of the Jewish Consumptives' Relief Society	300
University of Colorado Hospitals: Colorado General Hospital; Colorado Psychopathic Hospital	238
DURANGO	
Mercy Hospital	42
FORT LYON	
Veterans' Administration Hospital	638
GRAND JUNCTION	
St. Mary's Hospital	74
GREELEY	
Greeley Hospital	130
LA JUNTA	
A., T. & S. F. R. R. Hospital	36
*Mennonite Hospital and Sanitarium	80
LONGMONT	
Longmont Hospital	40
PUEBLO	
Corwin Hospital	234
Parkview Hospital	80
St. Mary Hospital	162
SALIDA	
Denver and Rio Grande Western Hospital Association's Hospital	85
*Red Cross Hospital	42
STERLING	
St. Benedict Hospital	36
TRINIDAD	
Mt. San Rafael Hospital	80

CONNECTICUT

BRIDGEPORT	
Bridgeport Hospital	415
St. Vincent's Hospital	235
BRISTOL	
Bristol Hospital	100
DANBURY	
Danbury Hospital	128
DERBY	
Griffin Hospital	101
GREENWICH	
Greenwich Hospital	125
HARTFORD	
Hartford Hospital	721
Mount Sinai Hospital	75
Municipal Hospital	145
St. Francis Hospital	580
MERIDEN	
Meriden Hospital	136
MIDDLETOWN	
Middlesex Hospital	150
NEW BRITAIN	
New Britain General Hospital	236
NEW HAVEN	
Grace Hospital	286
Hospital of St. Raphael	250
New Haven Hospital	439
NEWINGTON	
Veterans' Administration Hospital	249
NEW LONDON	
Home Memorial Hospital	60
Lawrence and Memorial Associated Hospitals	230
NORWALK	
Norwalk General Hospital	166

NORWICH
William W. Backus Hospital 155
PUTNAM
*Day Kimball Hospital 56
SOUTH MANCHESTER
Manchester Memorial Hospital 64
STAMFORD
Stamford Hospital 267
TORRINGTON
Charlotte Hungerford Hospital 150
WATERBURY
St. Mary's Hospital 250
Waterbury Hospital 321
WILLIMANTIC
St. Joseph's Hospital 50
WINSTED
*Litchfield County Hospital 75

DELAWARE

FARNHURST
Delaware State Hospital 725
LEWES
Beebe Hospital of Lewes 60
WILMINGTON
Delaware Hospital 200
Homeopathic Hospital 137
St. Francis Hospital 100
Wilmington General Hospital 124

DISTRICT OF COLUMBIA

WASHINGTON
Central Dispensary and Emergency Hospital 280
Children's Hospital of the District of Columbia 182
Columbia Hospital for Women and Lying-in Asylum 204
Episcopal Eye, Ear, and Throat Hospital 100
Freedmen's Hospital 270
Gallinger Municipal Hospital 650
Garfield Memorial Hospital 311
Georgetown University Hospital 291
George Washington University Hospital 124
National Homeopathic Hospital 80
Providence Hospital 325
Sibley Memorial Hospital 300
United States Naval Hospital 427
Veterans' Administration Hospital 312
Walter Reed General Hospital 1112
Washington Sanitarium and Hospital 175

FLORIDA

CLEARWATER
Morton F. Plant Endowed Hospital 35
DAYTONA BEACH
Halifax District Hospital 125
DE LAND
*De Land Memorial Hospital 32
FORT LAUDERDALE
*Lauderdale General Hospital 32
GAINESVILLE
Alachua County Hospital 55
JACKSONVILLE
Duval County Hospital 185
Riverside Hospital 41
St. Luke's Hospital 175
St. Vincent's Hospital 246
KEY WEST
United States Marine Hospital 75
LAKE CITY
Veterans' Administration Hospital 307
LAKELAND
Morrell Memorial Hospital 95
MELBOURNE
*Melbourne Hospital 27
MIAMI
*Dade County Hospital 102
James M. Jackson Memorial Hospital 325
Victoria Hospital 62
MIAMI BEACH
St. Francis Hospital 100
OCALA
Munroe Memorial Hospital 95
ORLANDO
Orange General Hospital 150
Orlando-Florida Sanitarium and Hospital 125
PENSACOLA
Pensacola Hospital 125
United States Naval Hospital 190
ST. AUGUSTINE
East Coast Hospital 100
Flagler Hospital 85
ST. PETERSBURG
City Hospitals (Mound Park—Mercy) 82
Faith Hospital 50
TALLAHASSEE
*Florida A. & M. Coll. Hosp. 25
TAMPA
Children's Hospital of Tampa 30
Tampa Municipal Hospital 192
WEST PALM BEACH
Good Samaritan Hospital 139

GEORGIA

ALBANY
*Phoebe Putney Memorial Hospital 50
ATHENS
Athens General Hospital 65
ATLANTA
Crawford W. Long Memorial Hospital 160
Georgia Baptist Hospital 150
Grady Memorial Hospital 560
Henrietta Egleston Hospital for Children 54
Piedmont Hospital 135
St. Joseph's Infirmary 137
Veterans' Administration Hospital 200
Wesley Memorial Hospital 165
AUGUSTA
Veterans' Administration Hospital 617
University Hospital 257
Wilhenford Hospital for Women and Children 54
CANTON
*Coker's Hospital 25
COLUMBUS
City Hospital 125
CUTHBERT
Patterson Hospital 28
DECATUR
Scottish Rite Hospital for Crippled Children 64
GAINESVILLE
Downey Hospital 52
MACON
Macon Hospital 168
Middle Georgia Sanatorium 58
MILLEN
Millen Hospital 25
PLAINS
Wise Sanitarium 54
ROME
Harbin Hospital 75
McCall Hospital 50
SAVANNAH
Central of Georgia Railway Hospital 62
United States Marine Hospital 150
THOMASVILLE
John D. Archbold Memorial Hospital 115
WAYCROSS
Atlantic Coast Lines Hospital 75

IDAHO

BOISE
St. Alphonsus Hospital 137
St. Luke's Hospital 114
Veterans' Administration Hospital 235
IDAHO FALLS
Idaho Falls Latter Day Saints Hospital 100
LEWISTON
St. Joseph's Hospital 100
NAMPA
Mercy Hospital 46
POCATELLO
Pocatello General Hospital 70
St. Anthony's Mercy Hospital 50
WALLACE
Providence Hospital 69

ILLINOIS

ALTON
St. Joseph's Hospital 75
AURORA
*Copley Hospital 85
*St. Joseph's Hospital 100
BERWYN
Berwyn Hospital 93
BLUE ISLAND
St. Francis Hospital 104
CAIRO
St. Mary's Hospital 100
CHICAGO
Albert Merritt Billings Hospital 216
Alexian Brothers Hospital 288
American Hospital 130
Augustana Hospital 405
*Bethany Sanitarium and Hospital 50
Chicago Eye, Ear, Nose, and Throat Hospital 75
Chicago Lying-in Hosp. & Disp. 260
Chicago Memorial Hospital 103
Children's Memorial Hospital 275
Columbus Hospital 153
Cook County Hospital 3300
Edgewater Hospital 146
Englewood Hospital 131
Evangelical Deaconess Hospital 84
Evangelical Hospital of Chicago 260
Frances E. Willard Nat. Temp. Hosp. 185
Garfield Park Hospital 223
Grant Hospital 305
Henrotin Hospital 85
Holy Cross Hospital 118
Hospital of St. Anthony de Padua 265
Illinois Central Hospital 250
Illinois Eye and Ear Infirmary 237
Illinois Masonic Hospital 170
Jackson Park Hospital 217
John B. Murphy Hospital 140
Lake View Hospital 140
Lutheran Deaconess Home and Hospital .. 217
Lutheran Memorial Hospital 150
Mercy Hospital 405
Michael Reese Hospital 606
Misericordia Hospital and Home for Infants 110
Mother Cabrini Memorial Hospital 170
Mount Sinai Hospital 204
Municipal Contagious Disease Hospital 428
Municipal Tuberculosis Sanitarium 1250
Passavant Memorial Hospital 250
Post-Graduate Hospital 85
Presbyterian Hospital 439
*Provident Hospital 65
Ravenswood Hospital 193
Research and Ed. Hosp., State of Illinois 175
Roseland Community Hospital 100
St. Anne's Hospital 310
St. Bernard's Hospital 200
St. Elizabeth's Hospital 287
St. Joseph's Hospital 220
St. Luke's Hospital 671
St. Mary of Nazareth Hospital 250
Shriners' Hospital for Crippled Children 62
South Chicago Community Hospital 85
South Shore Hospital 125
Swedish Covenant Hospital 225
United States Marine Hospital 150
University Hospital of Chicago 121
Washington Boulevard Hospital 110
*Washington Park Community Hospital 110
Wesley Memorial Hospital 275
*West Side Hospital 161
Women and Children's Hospital 125
DANVILLE
Lake View Hospital 170
St. Elizabeth's Hospital 175
Veterans' Administration Hospital 560
DECATUR
Decatur and Macon County Hospital 142
Wabash Employees' Hospital 85
DE KALB
De Kalb Public Hospital 52
DIXON
*Dixon Public Hospital 60
DWIGHT
Veterans' Administration Hospital 225
EAST ST. LOUIS
Christian Welfare Hospital 55
St. Mary's Hospital 300
ELGIN
Sherman Hospital 106
EVANSTON
Evanston Hospital 274
St. Francis Hospital 360
EVERGREEN PARK
Little Company of Mary Hospital 150
FREEPORT
*Evangelical Deaconess Hospital 100
*Freeport Methodist Memorial Hospital 50
*St. Francis Hospital 138
GALESBURG
Galesburg Cottage Hospital 115
GENEVA
Community Hospital 85
GRANITE CITY
St. Elizabeth's Hospital 76
GREAT LAKES
United States Naval Hospital 800
HARVEY
Ingalls Memorial Hospital 120
HIGHLAND PARK
Highland Park Hospital 70
HINES
Veterans' Administration Hospital 1750
JACKSONVILLE
Our Savior's Hospital 86
Passavant Memorial Hospital 86
JOLIET
St. Joseph's Hospital 232
Silver Cross Hospital 150
KANKAKEE
St. Mary Hospital 157
KEWANEE
Kewanee Public Hospital 69
St. Francis Hospital 66
MELROSE PARK
*Westlake Hospital 94
MOLINE
Lutheran Hospital 75
Moline Public Hospital 150
MURPHYSBORO
St. Andrew's Hospital 50
NORTH CHICAGO
Veterans' Administration Hospital 1135
OAK PARK
Oak Park Hospital 175
West Suburban Hospital 427
OLNEY
Olney Sanitarium 80
PANA
*Huber Memorial Hospital 50
PEORIA
*St. Francis Hospital 305
QUINCY
Blessing Hospital 150
St. Mary Hospital 216
ROCKFORD
Rockford Hospital 110
Swedish-American Hospital 92
ROCK ISLAND
St. Anthony's Hospital 168
SPRINGFIELD
Palmer Tuberculosis Sanatorium 75
STERLING
Public Hospital of the City of Sterling 63
WAUKEGAN
St. Therese's Hospital 208
Victory Memorial Hospital 90

INDIANA

ANDERSON
St. John's Hospital 85

CROWN POINT
Lake County Tuberculosis Sanatorium..... 128
EAST CHICAGO
St. Catherine's Hospital..... 360
EVANSVILLE
Protestant Deaconess Hospital..... 161
St. Mary's Hospital..... 125
United States Marine Hospital..... 54
Walker Hospital 105
FORT WAYNE
*Fort Wayne Lutheran Hospital..... 189
*Methodist Episcopal Hospital..... 140
St. Joseph's Hospital..... 350
FRANKFORT
Clinton County Hospital..... 50
GARY
Illinois Steel Company, Gary Hospital..... 120
Methodist Hospital 100
St. Mary's Mercy Hospital..... 265
HAMMOND
St. Margaret's Hospital..... 250
INDIANAPOLIS
Indianapolis City Hospital..... 518
Indiana University Hospitals—
Robert W. Long Hospital
James Whitcomb Riley Hospital for Children
William H. Coleman Hospital for Women 420
Methodist Episcopal Hospital..... 662
St. Vincent's Hospital..... 285
JEFFERSONVILLE
*Clarke County Memorial Hospital..... 35
LA FAYETTE
La Fayette Home Hospital..... 155
St. Elizabeth Hospital..... 250
Wabash Valley Sanitarium and Hospital 50
MARION
*Grant County Hospital..... 62
MICHIGAN CITY
Clinic Hospital 60
St. Anthony's Hospital..... 100
MISHAWAKA
St. Joseph's Hospital..... 115
MUNCIE
Ball Memorial Hospital..... 160
NATIONAL MILITARY HOME
Veterans' Administration Hospital.....1400
NEW ALBANY
St. Edward's Hospital..... 120
RICHMOND
Reid Memorial Hospital..... 146
SOUTH BEND
Epworth Hospital 187
St. Joseph Hospital..... 147
SULLIVAN
Mary Sherman Memorial Hospital..... 60
TERRE HAUTE
St. Anthony's Hospital..... 181
Union Hospital 198

IOWA

AMES
Iowa State College Hospital..... 90
ANAMOSA
*Mercy Hospital 35
BURLINGTON
Burlington Hospital 125
Mercy Hospital 145
CARROLL
*St. Anthony Hospital..... 132
CEDAR RAPIDS
Mercy Hospital 175
St. Luke's Methodist Hospital..... 175
CENTERVILLE
St. Joseph's Hospital..... 53
CLINTON
Jane Lamb Memorial Hospital..... 112
St. Joseph Mercy Hospital..... 85
COUNCIL BLUFFS
Jennie Edmundson Memorial Hospital..... 135
Mercy Hospital 147
DAVENPORT
Mercy Hospital 135
St. Luke's Hospital 127
DES MOINES
Iowa Lutheran Hospital and Iowa Lutheran Maternity Hospital..... 140
Iowa Methodist Hospital..... 275
Mercy Hospital 171
Polk County Public Hospitals—
Broadlawns Division 100
*General Division 109
DUBUQUE
Finley Hospital 112
FORT DODGE
St. Joseph's Mercy Hospital..... 125
FORT MADISON
*Atchison, Topeka, and Santa Fe Hospital 60
GRINNELL
Community Hospital 60
HAMPTON
Lutheran Hospital 75
IOWA CITY
Mercy Hospital 75
University Hospitals 1004
KEOKUK
Graham Protestant Hospital..... 78
St. Joseph's Hospital..... 135
KNOXVILLE
Veterans' Administration Hospital..... 851
LE MARS
Sacred Heart Hospital..... 50
MASON CITY
Park Hospital 65
St. Joseph's Mercy Hospital..... 75
NEW HAMPTON
St. Joseph's Hospital..... 60
OTTUMWA
*Ottumwa Hospital 65
St. Joseph's Hospital..... 75
Sunnyslope Sanatorium 53
SIOUX CITY
Lutheran Hospital 75
Methodist Hospital 120
St. Joseph's Mercy Hospital..... 200
St. Vincent's Hospital..... 125
WASHINGTON
Washington County Hospital..... 35
WATERLOO
Allen Memorial Hospital..... 58
St. Francis Hospital..... 90
WAVERLY
St. Joseph Mercy Hospital..... 56

KANSAS

BELOIT
Community Hospital 60
CONCORDIA
St. Joseph's Hospital..... 85
DODGE CITY
St. Anthony's Hospital..... 80
EL DORADO
Susan B. Allen Memorial Hospital..... 50
ELLSWORTH
Ellsworth Hospital 40
FORT LEAVENWORTH
U. S. Penitentiary Annex Hospital..... 152
FORT SCOTT
Mercy Hospital 105
GARDEN CITY
*St. Catherine's Hospital..... 57
GREAT BEND
St. Rose Hospital..... 113
HALSTEAD
Halstead Hospital 203
HAYS
St. Anthony's Hospital..... 122
HUTCHINSON
Grace Hospital 149
St. Elizabeth's Mercy Hospital..... 83
INDEPENDENCE
*Mercy Hospital 87
KANSAS CITY
Bell Memorial Hospital..... 210
*Bethany Methodist Hospital..... 160
*Providence Hospital 77
St. Margaret's Hospital..... 264
LEAVENWORTH
St. John's Hospital..... 50
United States Penitentiary Hospital..... 172
LIBERAL
*Epworth Hospital 51
MULVANE
Atchison, Topeka, and Santa Fe Hospital 50
NATIONAL MILITARY HOME
Veterans' Administration Hospital..... 448
NEWTON
Axtell Christian Hospital..... 53
Bethel Deaconess Hospital..... 60
PARSONS
M. K. & T. R. R. Employes' Hospital..... 65
PITTSBURG
Mt. Carmel Hospital..... 81
SABETHA
St. Anthony Murdock Memorial Hospital.. 100
SALINA
St. John's Hospital. 72
TOPEKA
Atchison, Topeka, and Santa Fe Hospital 140
Christ's Hospital 114
Jane C. Stormont Hospital..... 85
St. Francis Hospital..... 87
WELLINGTON
Hatcher Hospital 30
WICHITA
St. Francis Hospital..... 300
Wesley Hospital 235
Wichita Hospital 119
WINFIELD
St. Mary's Hospital..... 50
William Newton Memorial Hospital..... 52

KENTUCKY

ASHLAND
*King's Daughters' Hospital..... 50
BEREA
Berea College Hospital..... 127
BOWLING GREEN
*City Hospital 60
COVINGTON
St. Elizabeth's Hospital..... 375
William Booth Memorial Hospital..... 128
DAYTON
Speers Memorial Hospital..... 104
HOPKINSVILLE
*Jennie Stuart Memorial Hospital..... 33
JENKINS
Jenkins Hospital 65
LEXINGTON
Good Samaritan Hospital..... 165
St. Joseph's Hospital..... 200
Shriners' Hospital for Crippled Children 28
Veterans' Administration Hospital..... 249
LOUISVILLE
Children's Free Hospital..... 75
Jewish Hospital 99
J. N. Norton Memorial Infirmary..... 110
Kentucky Baptist Hospital..... 150
Kosair Crippled Children Hospital..... 60
Louisville City Hospital..... 400
Methodist Episcopal Deaconess Hospital..... 75
St. Anthony's Hospital..... 150
St. Joseph's Infirmary..... 326
Sts. Mary and Elizabeth Hospital..... 145
United States Marine Hospital..... 83
LYNCH
Lynch Hosp. of the U. S. Coal & Coke Co. 50
MURRAY
William Mason Memorial Hospital..... 75
OUTWOOD
Veterans' Administration Hospital..... 375
PADUCAH
Illinois Central Hospital..... 90
Riverside Hospital 138
PARIS
W. W. Massie Memorial Hospital..... 50
PIKEVILLE
*Methodist Hospital of Kentucky..... 50

LOUISIANA

ALEXANDRIA
Baptist Hospital 66
Veterans' Administration Hospital..... 421
BATON ROUGE
Our Lady of the Lake Hospital..... 110
BOGALUSA
Elizabeth Sullivan Memorial Hospital..... 94
CARVILLE
United States Marine Hospital..... 425
HAYNESVILLE
Haynesville Hospital 27
JACKSON
Parker Hospital of the East Louisiana Hospital for Insane..... 60
LAKE CHARLES
St. Patrick's Sanitarium..... 75
MONROE
St. Francis Sanitarium..... 140
NEW ORLEANS
Eye, Ear, Nose, and Throat Hospital..... 70
*Flint-Goodridge Hospital 74
French Hospital 67
Hotel Dieu 261
Illinois Central Hospital..... 70
Mercy Hospital—Soniat Memorial..... 155
Southern Baptist Hospital..... 212
State of Louisiana Charity Hospital.....1756
Touro Infirmary 383
United States Marine Hospital..... 470
SHREVEPORT
Highland Sanitarium 116
North Louisiana Sanitarium..... 100
Shreveport Charity Hospital..... 350
Shreveport Sanitarium and T. E. Schumpert Memorial Hospital..... 150
Shriners' Hospital for Crippled Children.. 60
Tri-State Sanitarium 125

MAINE

AUGUSTA
Augusta General Hospital..... 80
Veterans' Administration Hospital..... 317
BANGOR
Eastern Maine General Hospital..... 150
BATH
Bath City Hospital..... 63
BELFAST
Waldo County General Hospital..... 33
FARMINGTON
Franklin County Memorial Hospital..... 58
GARDINER
*Gardiner General Hospital..... 49
LEWISTON
Central Maine General Hospital..... 125
St. Mary's General Hospital..... 150
PORTLAND
Children's Hospital 100
Maine Eye and Ear Infirmary..... 125
Maine General Hospital..... 193
St. Barnabas Hospital..... 65
State Street Hospital..... 67
United States Marine Hospital..... 72
RUMFORD
*Rumford Community Hospital..... 65
SANFORD
Henrietta D. Goodall Hospital..... 53
WATERVILLE
Sisters' Hospital 100
*Thayer Hospital 33

MARYLAND

ANNAPOLIS
United States Naval Hospital..... 252
BALTIMORE
Baltimore City Hospitals.....1863
Bon Secours Hospital..... 65
Children's Hospital 120
Church Home and Infirmary..... 175
Franklin Square Hospital..... 135
Hospital for the Women of Maryland..... 134

Howard A. Kelly Hospital ... 35
Johns Hopkins Hospital ... 750
Maryland General Hospital ... 232
Mercy Hospital ... 280
Provident Hospital and Free Dispensary ... 122
St. Agnes Hospital ... 208
St. Joseph's Hospital ... 276
Sinai Hospital ... 271
South Baltimore General Hospital ... 115
Union Memorial Hospital ... 311
United States Marine Hospital ... 222
University Hospital ... 250
Volunteers of America Hospital ... 40
West Baltimore General Hospital ... 165

CAMBRIDGE
Cambridge-Maryland Hospital ... 89

CUMBERLAND
Allegany Hosp. of Sisters of Charity ... 100
Memorial Hospital ... 148

EASTON
Emergency Hospital ... 101

FREDERICK
Frederick City Hospital ... 125

HAGERSTOWN
Washington County Hospital ... 122

HILLSDALE
James Lawrence Kernan Hospital and Industrial School of Maryland for Crippled Children ... 62

PERRY POINT
Veterans' Administration Hospital ... 1015

SALISBURY
Peninsula General Hospital ... 104

MASSACHUSETTS

ADAMS
W. B. Plunkett Memorial Hospital ... 53

AMESBURY
Amesbury Hospital ... 36

ARLINGTON
Symmes Arlington Hospital ... 100

ATTLEBORO
Sturdy Memorial Hospital ... 125

AYER
*Community Memorial Hospital ... 29

BEDFORD
Veterans' Administration Hospital ... 644

BEVERLY
Beverly Hospital ... 146

BOSTON
Beth Israel Hospital ... 190
Boston City Hospital ... 2000
Boston Dispensary Hospital for Children ... 36
Boston Lying-in Hospital ... 204
Carney Hospital ... 210
Children's and Infants' Hospital ... 302
Collis P. Huntington Memorial Hospital ... 25
Emerson Hospital ... 65
Evangeline Booth Maternity Hospital and Home ... 60
Faulkner Hospital ... 100
Harley Private Hospital ... 83
Hart Private Hospital ... 85
House of the Good Samaritan ... 75
Long Island Hospital ... 575
Massachusetts Eye and Ear Infirmary ... 231
Massachusetts General Hospital ... 974
Massachusetts Memorial Hospital ... 602
Massachusetts Women's Hospital ... 81
New England Baptist Hospital ... 150
New England Deaconess Hospital ... 265
New England Hospital for Women and Children ... 240
Peter Bent Brigham Hospital ... 247
Robert Breck Brigham Hospital ... 115
Roxbury Hospital ... 56
St. Elizabeth's Hospital ... 300
St. Margaret's and St. Mary's Lying-in Hospitals ... 100

BROCKTON
Brockton Hospital ... 144
Goddard Hospital ... 71

BROOKLINE
Brooks Hospital ... 40
Free Hospital for Women ... 94

CAMBRIDGE
Cambridge City Hospital ... 114
Cambridge Hospital ... 300

CHELSEA
Chelsea Memorial Hospital ... 107
Soldiers' Home in Massachusetts ... 252
United States Marine Hospital ... 175
United States Naval Hospital ... 660

CLINTON
Clinton Hospital ... 87

CONCORD
Emerson Hospital in Concord ... 48

FALL RIVER
Fall River General Hospital ... 312
St. Anne's Hospital ... 116
Truesdale Hospital ... 120
Union Hospital in Fall River ... 175

FITCHBURG
Burbank Hospital ... 211

FRAMINGHAM
Framingham-Union Hospital ... 160

GARDNER
Henry Heywood Memorial Hospital ... 100

GLOUCESTER
Addison Gilbert Hospital ... 65

GREENFIELD
Franklin County Public Hospital ... 106

HAVERHILL
General Stephen Henry Gale Hospital ... 125
*Hale Hospital ... 60

HOLDEN
Holden District Hospital ... 32

HOLYOKE
Holyoke Hospital ... 150
Providence Hospital ... 144

LAWRENCE
Lawrence General Hospital ... 147

LEOMINSTER
Leominster Hospital ... 73

LOWELL
Lowell General Hospital ... 130
St. John's Hospital ... 157
St. Joseph's Hospital ... 108

LYNN
Lynn Hospital ... 203

MALDEN
Malden Hospital ... 118

MEDFORD
Lawrence Memorial Hospital ... 105

MELROSE
Melrose Hospital ... 120
New England Sanitarium and Hospital ... 165

MIDDLEBOROUGH
Lakeville State Sanatorium ... 313

MILFORD
*Milford Hospital ... 55

MONTAGUE CITY
Farren Memorial Hospital ... 92

NATICK
Leonard Morse Hospital ... 57

NEW BEDFORD
St. Luke's Hospital ... 330

NEWBURYPORT
Anna Jaques Hospital ... 60

NEWTON LOWER FALLS
Newton Hospital ... 240

NORTH ADAMS
North Adams Hospital ... 100

NORTHAMPTON
Cooley Dickinson Hospital ... 154
Veterans' Administration Hospital ... 555

NORTH WILMINGTON
North Reading State Sanatorium ... 297

NORWOOD
Norwood Hospital ... 100

PALMER
Wing Memorial Hospital ... 35

PEABODY
Josiah B. Thomas Hospital ... 50

PITTSFIELD
House of Mercy Hospital ... 222
St. Luke's Hospital ... 165

QUINCY
Quincy City Hospital ... 250

RUTLAND
Rutland State Sanatorium ... 360
Veterans' Administration Hospital ... 420

SALEM
North Shore Babies' Hospital ... 50
Salem Hospital ... 137

SOMERVILLE
Somerville Hospital ... 80

SPRINGFIELD
Mercy Hospital ... 400
Shriners' Hospital for Crippled Children ... 60
Springfield Hospital ... 171
Wesson Maternity Hospital ... 112
Wesson Memorial Hospital ... 122

TAUNTON
Morton Hospital ... 75

VINEYARD HAVEN
United States Marine Hospital ... 28

WALTHAM
Waltham Hospital ... 215

WARE
Mary Lane Hospital ... 46

WESTFIELD
*Noble Hospital ... 108
Westfield State Sanatorium ... 306

WINCHESTER
Winchester Hospital ... 85

WOBURN
Charles Choate Memorial Hospital ... 61

WORCESTER
City Hospital ... 400
Fairlawn Hospital ... 61
Memorial Hospital ... 215
St. Vincent Hospital ... 250
Worcester Hahnemann Hospital ... 141

WRENTHAM
Pondville Hospital at Norfolk ... 115

MICHIGAN

ALBION
James W. Sheldon Memorial Hospital ... 50

ANN ARBOR
St. Joseph's Mercy Hospital ... 201
University Hospital ... 1285

BATTLE CREEK
Battle Creek Sanitarium ... 1011
Leila Y. Post Montgomery Hospital ... 200
Nichols Memorial Hospital ... 100

BAY CITY
Mercy Hospital ... 180

BENTON HARBOR
Mercy Hospital ... 50

CADILLAC
Mercy Hospital ... 50

CALUMET
*Calumet & Hecla Mining Co. Hospital ... 25

CAMP CUSTER
Veterans' Administration Hospital ... 636

DETROIT
Children's Hospital of Michigan ... 250
*Delray Industrial Hospital ... 95
*Detroit Eye, Ear, Nose, and Throat Hospital ... 120
*Dunbar Memorial Hospital ... 67
Evangelical Deaconess Hospital ... 135
Grace Hospital ... 352
Harper Hospital ... 750
Henry Ford Hospital ... 455
Herman Kiefer Hospital ... 1200
Jefferson Clinic and Diagnostic Hospital ... 55
*Lincoln Hospital ... 90
Michigan Mutual Hospital ... 45
Providence Hospital ... 450
Receiving Hospital ... 750
St. Joseph's Mercy Hospital ... 170
St. Mary's Hospital ... 350
United States Marine Hospital ... 132
Woman's Hospital ... 173

ELOISE
Eloise Infirmary ... 6600

FLINT
Hurley Hospital ... 450
Women's Hospital ... 64

GOODRICH
Goodrich General Hospital ... 27

GRAND RAPIDS
Blodgett Memorial Hospital ... 150
Butterworth Hospital ... 270
St. Mary's Hospital ... 253

GROSSE POINTE
Cottage Hospital of Grosse Pointe ... 58

HANCOCK
St. Joseph's Hospital ... 60

HIGHLAND PARK
Highland Park General Hospital ... 145

IRONWOOD
*Grand View Hospital ... 50

ISHPEMING
Ishpeming Hospital ... 47

JACKSON
Mercy Hospital ... 74
W. A. Foote Memorial Hospital ... 129

KALAMAZOO
Borgess Hospital ... 350
Bronson Methodist Hospital ... 143

LANSING
Edward W. Sparrow Hospital ... 145
St. Lawrence Hospital ... 130

MARQUETTE
*St. Luke's Hospital ... 58

MT. CLEMENS
St. Joseph Hospital ... 150

MUSKEGON
Hackley Hospital ... 115
Mercy Hospital ... 124
Muskegon County Sanatorium ... 52

NILES
*Pawating Hospital ... 47

OWOSSO
Memorial Hospital ... 100

PONTIAC
Pontiac City Hospital ... 120
St. Joseph Mercy Hospital ... 150

SAGINAW
Saginaw General Hospital ... 156
St. Mary's Hospital ... 194
Woman's Hospital ... 62

ST. JOHNS
Clinton Memorial Hospital ... 59

SAULT STE. MARIE
Chippewa County War Memorial Hospital ... 61

WYANDOTTE
Wyandotte General Hospital ... 69

MINNESOTA

ALBERT LEA
*Naeve Hospital ... 80

ALEXANDRIA
*Douglas County Hospital ... 35

BRAINERD
St. Joseph's Hospital ... 74

CROOKSTON
*Bethesda Hospital ... 45
St. Vincent's Hospital ... 57

DULUTH
St. Luke's Hospital ... 270
St. Mary's Hospital ... 290

EVELETH
More Hospital ... 38

FERGUS FALLS
*George B. Wright Memorial Hospital ... 62
St. Luke's Hospital ... 80

GRACEVILLE
Western Minnesota Hospital ... 42

HIBBING
*Adams Hospital ... 32
Rood Hospital ... 43

LITTLE FALLS
St. Gabriel's Hospital ... 50

MANKATO
Immanuel Hospital ... 75
St. Joseph's Hospital ... 139

MINNEAPOLIS
Abbott Hospital ... 100
Asbury Hospital ... 168
Eitel Hospital ... 120
Fairview Hospital ... 225
Hill Crest Surgical Hospital ... 80
Lutheran Deaconess Home and Hospital ... 150

Maternity Hospital 119
Minneapolis General Hospital 756
Northwestern Hospital 200
*St. Andrew's Hospital 100
*St. Barnabas Hospital 190
St. Mary's Hospital 370
Shriners' Hospital for Crippled Children 62
*Swedish Hospital 332
University Hospital 450
Veterans' Administration Hospital 562

NOPEMING
Nopeming Sanatorium 225

OAK TERRACE
Glen Lake Sanatorium 698

RED WING
*St. John's Hospital 90

ROCHESTER
Colonial Hospital 267
Kahler Hospital 165
St. Mary's Hospital 624
Worrell Hospital 191

ST. CLOUD
St. Cloud Hospital 211
Veterans' Administration Hospital 494

ST. PAUL
Ancker Hospital 1080
Bethesda Hospital 110
Charles T. Miller Hospital 216
Children's Hospital 70
Gillette Hosp. for Crippled Children 250
Midway Hospital 128
Mounds Park Sanitarium 137
Northern Pacific Ben. Assoc. Hosp. 162
St. John's Hospital 95
St. Joseph's Hospital 275
St. Luke's Hospital 160
St. Paul Hospital 168

STILLWATER
*Lakeview Memorial Hospital 50

THIEF RIVER FALLS
St. Luke's Hospital 44

WADENA
*Wesley Hospital 50

WARREN
Warren Hospital 47

WILLMAR
*Willmar Hospital 42

WINONA
Winona General Hospital 124

MISSISSIPPI

AGRICULTURAL COLLEGE
J. Z. George Memorial Hospital 41

BILOXI
*Biloxi Hospital 58

BROOKHAVEN
King's Daughters' Hospital 59

CENTREVILLE
*Field Memorial Hospital 32

COLUMBIA
Columbia Clinic Hospital 35

CORINTH
McRae Hospital 70

GREENVILLE
King's Daughters' Hospital (White) 114

GULFPORT
King's Daughters' Hospital 100
Veterans' Administration Hospital 425

HATTIESBURG
South Mississippi Infirmary 75

HOUSTON
Houston Hospital 40

JACKSON
Jackson Infirmary 85
Mississippi Baptist Hospital 100

LAUREL
*South Mississippi Charity Hospital 137

MERIDIAN
*Matty Hersee Hospital 110
Meridian Sanitarium 51
Rush's Infirmary 49

NATCHEZ
Natchez Charity Hospital 125

SANATORIUM
Mississippi State Tuberculosis Sanatorium 530

TUPELO
Tupelo Hospital 37

VICKSBURG
Vicksburg Hospital 72
Vicksburg Infirmary 90
Vicksburg San. & Crawford St. Hosp. 100

WINONA
Winona Infirmary 40

MISSOURI

BOONVILLE
St. Joseph's Hospital 89

CAPE GIRARDEAU
*St. Francis Hospital 58
*Southeast Missouri Hospital 71

CARTHAGE
*McCune-Brooks Hospital 50

COLUMBIA
Boone County General Hospital 53
University Hospitals 92

EXCELSIOR SPRINGS
Veterans' Administration Hospital 301

HANNIBAL
St. Elizabeth's Hospital 80

INDEPENDENCE
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JEFFERSON BARRACKS
Veterans' Administration Hospital 372

JEFFERSON CITY
Missouri State Prison Hospital 76
St. Mary's Hospital 60

JOPLIN
Freeman Hospital 92
St. John's Hospital 110

KANSAS CITY
Children's Mercy Hospital 161
Kansas City General Hospital 358
Kansas City Gen. Hosp. (Colored Div.) 299
Research Hospital 225
St. Joseph Hospital 251
St. Luke's Hospital 246
St. Mary's Hospital 175
Trinity Lutheran Hospital 135
Veterans' Administration Hospital 200
Wheatley-Provident Hospital 67

LOUISIANA
*Pike County Hospital 50

MARYVILLE
St. Francis Hospital 91

MOBERLY
Wabash Employes' Hospital 40

ST. CHARLES
*St. Joseph's Hospital 56

ST. JOSEPH
Missouri Methodist Hospital 220
St. Joseph's Hospital 150

ST. LOUIS
Alexian Brothers Hospital 225
Barnard Free Skin and Cancer Hospital 43
Barnes Hospital 270
Bethesda Hospital 101
Christian Hospital 130
De Paul Hospital 285
Evangelical Deaconess Home & Hosp. 180
Frisco Employes' Hospital 100
Jewish Hospital of St. Louis 304
Lutheran Hospital 195
Missouri Baptist Hospital 486
Missouri Pacific Hospital 300
Mount St. Rose Sanatorium 150
St. Anthony's Hospital 251
St. John's Hospital 333
St. Louis Children's Hospital 208
*St. Louis City Hospital 887
*St. Louis City Hospital No. 2 475
St. Louis Maternity Hospital 208
St. Luke's Hospital 210
St. Mary's Hospital 310
St. Mary's Infirmary 135
Shriners' Hospital for Crippled Children .. 120
United States Marine Hospital 100

SPRINGFIELD
*St. John's Hospital 104

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ANACONDA
St. Ann's Hospital 75

BILLINGS
*Billings Deaconess Hospital 67
St. Vincent's Hospital 172

BOZEMAN
*Bozeman Deaconess Hospital 70

BUTTE
Murray Hospital 122
St. James Hospital 165

FORT HARRISON
Veterans' Administration Hospital 306

GLENDIVE
Northern Pacific Ben. Assoc. Hosp. 70

GREAT FALLS
Columbus Hospital 340
Montana Deaconess Hospital 253

HAVRE
*Kennedy Deaconess Hospital 52
*Sacred Heart Hospital 75

HELENA
St. John's Hospital 60
St. Peter's Hospital 60

KALISPELL
Kalispell General Hospital 60

LEWISTOWN
St. Joseph's Hospital 75

MILES CITY
Holy Rosary Hospital 100

MISSOULA
Northern Pacific Ben. Assoc. Hosp. 70
St. Patrick's Hospital 117
Thornton Hospital 38

NEBRASKA

ALLIANCE
St. Joseph's Hospital 108

BEATRICE
Lutheran Hospital 66

COLUMBUS
St. Mary's Hospital 208

FALLS CITY
Falls City Hospital 35

GRAND ISLAND
St. Francis Hospital 122

LINCOLN
Bryan Memorial Hospital 103
Lincoln General Hospital 149
St. Elizabeth's Hospital 200
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McCOOK
*St. Catherine of Sienna Hospital 65

OMAHA
Bishop Clarkson Memorial Hospital 100
Creighton Memorial, St. Joseph's Hospital 455
Evangelical Covenant Hospital 122
Immanuel Hospital 136
Nebraska Methodist Episcopal Hospital .. 250
St. Catherine's Hospital 177
University of Nebraska Hospital 182

SCOTTSBLUFF
*West. Neb. Methodist Episcopal Hosp. 60

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EAST ELY
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ELKO
Elko General Hospital 50

RENO
St. Mary's Hospital 68

NEW HAMPSHIRE

BERLIN
Hospital St. Louis 60

CLAREMONT
Claremont General Hospital 70

CONCORD
Margaret Pillsbury General Hospital 123
New Hampshire Memorial Hospital 85

DOVER
Wentworth Hospital 84

GRASMERE
Hillsborough County General Hospital 125

HANOVER
Mary Hitchcock Memorial Hospital 140

KEENE
Elliot Community Hospital 86

LACONIA
Laconia Hospital 62

MANCHESTER
Ralch Hospital for Children 30
Elliot Hospital 88
L'Hôpital De Notre Dame De Lourdes 85
Sacred Heart Hospital 85

NASHUA
Nashua Memorial Hospital 90
St. Joseph's Hospital 115

PORTSMOUTH
Portsmouth Hospital 80
United States Naval Hospital 166

NEW JERSEY

ATLANTIC CITY
Atlantic City Hospital 316

BAYONNE
Bayonne Hospital and Dispensary 200

BRIDGETON
Bridgeton Hospital 99

CAMDEN
Cooper Hospital 332
West Jersey Homeopathic Hospital 267

EAST ORANGE
Homeopathic Hospital of Essex County 120

ELIZABETH
Alexian Brothers Hospital 200
Elizabeth Gen. Hosp. & Disp. 226
St. Elizabeth Hospital 260

ENGLEWOOD
Englewood Hospital 246

FRANKLIN
*Franklin Hospital 37

HACKENSACK
Hackensack Hospital 225

HOBOKEN
St. Mary's Hospital 425

IRVINGTON
Irvington General Hospital 89

JERSEY CITY
Christ Hospital 119
Jersey City Hospital 600
St. Francis Hospital 250

LONG BRANCH
Monmouth Memorial Hospital 209

LYONS
Veterans' Administration Hospital 895

MONTCLAIR
Montclair Community Hospital 76
Mountainside Hospital 250

MORRISTOWN
All Souls Hospital 102
Morristown Memorial Hospital 174

MOUNT HOLLY
Burlington County Hospital 122

NEWARK
Babies' Hospital 60
Hospital and Home for Crippled Children 125
*Hospital for Women and Children 110
Hospital of St. Barnabas 137
Newark Beth Israel Hospital 120
Newark City Hospital 700
Newark Eye and Ear Infirmary 62
Newark Memorial Hospital 165
Presbyterian Hospital 314
St. James General Hospital 125
St. Michael's Hospital 300

NEW BRUNSWICK
Middlesex General Hospital 110
St. Peter's General Hospital 150

ORANGE
N. J. Orthopedic Hosp. & Disp. 85
Orange Memorial Hospital 388
St. Mary's Hospital 126

PASSAIC
Passaic General Hospital 200
St. Mary's Hospital 225

PATERSON
Nathan & Miriam Barnert Mem. Hosp. 105
Paterson General Hospital 306
St. Joseph's Hospital 400

PERTH AMBOY
Perth Amboy City Hospital 154

PLAINFIELD
Muhlenberg Hospital 275
PRINCETON
Princeton Hospital 70
RAHWAY
*Memorial Hospital 120
RIDGEWOOD
Bergen County Hospital 400
SECAUCUS
Hudson County Hospital 210
SOMERVILLE
Somerset Hospital 86
SPRING LAKE
Ann May Mem. Homeopathic Hosp. 100
SUMMIT
Overlook Hospital 125
TEANECK
Holy Name Hospital 180
TRENTON
Mercer Hospital 210
New Jersey State Hospital 2700
St. Francis Hospital 207
Trenton Municipal Colony Hospital 426
William McKinley Memorial Hospital 146
VINELAND
Newcomb Hospital 100
WEEHAWKEN
North Hudson Hospital 189

NEW MEXICO

ALBUQUERQUE
Atchison, Topeka, and Santa Fe Hospital 67
St. Joseph Sanatorium and Hospital 250
CLOVIS
*Achison, Topeka, and Santa Fe Hospital 32
FORT BAYARD
Veterans' Administration Hospital 450
FORT STANTON
United States Marine Hospital 270
GALLUP
St. Mary's Hospital 100
RATON
*New Mexico Miners' Hospital 39
ROSWELL
St. Mary's Hospital 60
SANTA FE
St. Vincent Sanatorium and Hospital 80

NEW YORK

ALBANY
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Anthony N. Brady Maternity Home 120
*Child's Hospital 50
Memorial Hospital 140
St. Peter's Hospital 129
AMSTERDAM
Amsterdam City Hospital 86
St. Mary's Hospital 128
AUBURN
Auburn City Hospital 155
BATAVIA
*Batavia Hospital 59
St. Jerome's Hospital 72
BATH
Veterans' Administration Hospital 391
BAYSHORE
Southside Hospital 98
BINGHAMTON
Binghamton City Hospital 450
BRONX
Veterans' Administration Hospital 510
BRONXVILLE
Lawrence Hospital 105
BROOKLYN
Bay Ridge Sanitarium 103
*Beth Moses Hospital 226
Brooklyn Eye and Ear Hospital 178
Brooklyn Hospital 429
*Brownsville and East New York Hospital 244
Bushwick Hospital 116
Caledonian Hospital 130
Carson C. Peck Memorial Hospital 110
Coney Island Hospital 330
Cumberland Hospital 321
Greenpoint Hospital 300
Hospital of the Holy Family 63
House of St. Giles the Cripple 98
Jewish Hospital of Brooklyn 655
Kings County Hospital 1660
Kingston Avenue Hospital 460
Long Island College Hospital 480
Lutheran Hospital 110
Methodist Episcopal Hospital 400
Norwegian Lutheran Deaconesses' Home and Hospital 201
Prospect Heights Hospital and Brooklyn Maternity 226
St. Catherine's Hospital 296
St. John's Hospital 234
St. Mary's Hospital 307
St. Peter's Hospital 250
*United Israel-Zion Hospital 430
Wyckoff Heights Hospital of Brook'yn 200
BUFFALO
Buffalo City Hospital 863
Buffalo Columbus Hospital 70
Buffalo General Hospital 391
*Buffalo Hospital of the Sisters of Charity 235
Children's Hospital of Buffalo 250
Deaconess Hospital 227
Emergency Hosp. of Sisters of Charity 100
*Memorial Hospital of Buffalo 65
Mercy Hospital 161
Millard Filmore Hospital 306
St. Mary's Maternity Hospital 150
United States Marine Hospital 85
CAMBRIDGE
Mary McClellan Hospital 110
CANANDAIGUA
Frederick Ferris Thompson Hospital 113
CASTLE POINT
Veterans' Administration Hospital 450
CLIFTON SPRINGS
Clifton Springs Sanitarium and Clinic 477
COHOES
Cohoes Hospital 60
COOPERSTOWN
Mary Imogene Bassett Hospital 80
CORNING
*Corning Hospital 110
CORTLAND
Cortland County Hospital 135
DOBBS FERRY
Dobbs Ferry Hospital 50
ELLIS ISLAND
United States Marine Hospital 540
ELMIRA
Arnot-Ogden Memorial Hospital 207
St. Joseph's Hospital 192
ENDICOTT
Ideal Hospital of Endicott 135
FAR ROCKAWAY
St. Joseph's Hospital 100
FLUSHING
Flushing Hospital and Dispensary 243
GENEVA
Geneva General Hospital 69
GLEN COVE
North Country Community Hospital 120
GLENS FALLS
Glens Falls Hospital 95
GLOVERSVILLE
Nathan Littauer Hospital 121
HORNELL
Bethesda Hospital 57
St. James Mercy Hospital 90
HUDSON
Hudson City Hospital 106
ITHACA
Ithaca Memorial Hospital 134
JAMAICA
Mary Immaculate Hospital 310
Queensboro Hospital 64
JAMESTOWN
Jamestown General Hospital 102
Woman's Christian Association Hospital .. 130
JOHNSON CITY
Charles S. Wilson Memorial Hospital 194
KINGSTON
Benedictine Hospital 100
Kingston Hospital 135
LACKAWANNA
Our Lady of Victory Hospital 129
LONG ISLAND CITY
St. John's Long Island City Hospital 272
MALONE
Alice Hyde Memorial Hospital 89
MIDDLETOWN
Elizabeth A. Horton Memorial Hospital .. 108
MINEOLA
Nassau Hospital 205
MT. KISCO
Northern Westchester Hospital 99
MOUNT VERNON
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NEW ROCHELLE
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Beekman Street Hospital 100
Bellevue Hospital 2069
Beth David Hospital 128
Beth Israel Hospital Medical Center 501
*Booth Memorial Hospital 49
*Broad Street Hospital 128
Bronx Hospital 110
Central Neurological Hospital 470
Columbus Hospital 104
Columbus Hospital Extension 100
Community Hospital 110
Fifth Avenue Hospital 301
Fordham Hospital 350
French Benevolent Society Hospital 190
Gouverneur Hospital 210
Harlem Hospital 341
Herman Knapp Memorial Eye Hospital 50
Hospital for Joint Diseases 355
Hospital for the Ruptured and Crippled 291
Hospital of the Rockefeller Institute 60
Jewish Memorial Hospital 117
Knickerbocker Hospital 223
Lebanon Hospital 192
Lenox Hill Hospital 333
Lincoln Hospital 429
Lutheran Hospital of Manhattan 121
Lying-in Hospital 283
Manhattan Eye, Ear, and Throat Hospital 214
Manhattan Maternity and Dispensary 96
Memorial Hospital for the Treatment of Cancer and Allied Diseases 109
Metropolitan Hospital 1435
*Midtown Hospital 61
Misericordia Hospital 327
Montefiore Hospital 906
Morrisania Hospital 416
Mount Sinai Hospital 676
Neurological Institute of New York 211
New York City Cancer Institute Hospital 212
New York City Hospital 1060
New York Eye and Ear Infirmary 175
New York Foundling Hospital 305
New York Homeopathic Medical College and Flower Hospital 227
New York Hospital 296
New York Infirmary for Women and Children 168
New York Nursery and Child's Hospital 256
New York Orthopedic Dispensary and Hospital 303
New York Polyclinic Medical School and Hospital 337
New York Post-Graduate Medical School and Hospital 425
Presbyterian Hospital 550
Riverside Hospital 336
Roosevelt Hospital 391
St. Elizabeth's Hospital 142
St. Francis' Hospital 450
St. Luke's Hospital 527
St. Mary's Hospital for Children 134
St. Vincent's Hospital 360
Sloane Hospital for Women 320
Stuyvesant Square Hospital 100
Sydenham Hospital 200
United States Naval Hospital 847
West Side Hospital and Dispensary 27
Willard Parker Hospital 448
Woman's Hospital 289
NIAGARA FALLS
Mt. St. Mary's Hospital 145
Niagara Falls Memorial Hospital 191
NORTHPORT, L. I.
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NORWICH
*Chenango Memorial Hospital 76
OLEAN
Olean General Hospital 110
ONEIDA
Broad Street Hospital 60
ONEONTA
Aurelia Osborn Fox Memorial Hospital .. 59
OSSINING-ON-HUDSON
Ossining Hospital 58
Sing Sing Prison Hospital 50
OSWEGO
*Oswego Hospital 89
OTISVILLE
Municipal Sanatorium 396
PENN YAN
Soldiers and Sailors Memorial Hospital 50
PLATTSBURGH
Champlain Valley Hospital 107
Physicians' Hospital of Plattsburgh 133
PORT CHESTER
United Hospital 110
POUGHKEEPSIE
St. Francis Hospital 110
Vassar Brothers Hospital 204
RICHMOND HILL
Jamaica Hospital 167
ROCHESTER
Genesee Hospital 239
Highland Hospital 256
*Monroe County Hospital 250
Park Avenue Hospital 101
Rochester General Hospital 305
Rochester Municipal Hospital 250
St. Mary's Hospital 200
Strong Memorial Hospital 286
ROCKAWAY BEACH
Rockaway Beach Hospital 100
ROME
Rome Hospital and Murphy Memorial Hospital 82
SARATOGA SPRINGS
Saratoga Hospital 107
SCHENECTADY
Ellis Hospital 285
SOUTHAMPTON
*Southampton Hospital 115
STAPLETON, S. I.
United States Marine Hospital 288
SUNMOUNT
Veterans' Administration Hospital 375
SYRACUSE
Crouse-Irving Hospital 234
General Hospital of Syracuse 110
*Onondaga General Hospital 76
St. Joseph Hospital 231
Syracuse Memorial Hospital 250
University Hospital of the Good Shepherd 267
TARRYTOWN
Tarrytown Hospital 60
TICONDEROGA
Moses-Ludington Hospital 50
TOMPKINSVILLE, S. I.
Staten Island Hospital 275
TROY
Leonard Hospital 62
Samaritan Hospital 175
Troy Hospital 262
UTICA
Faxton Hospital 209
Masonic Soldiers and Sailors Memorial Hospital 200

St. Elizabeth's Hospital 145
St. Luke's Home and Hospital 151
Utica General Hospital 120
Utica Memorial Hospital 75

VALHALLA
Grasslands Hospital 584

WARSAW
Wyoming County Community Hospital 70

WATERTOWN
House of the Good Samaritan 136
Mercy Hospital 118

WAVERLY
Tioga County General Hospital 63

WEST HAVERSTRAW
New York State Reconstruction Home 300

WEST NEW BRIGHTON, S. I.
St. Vincent's Hospital 115
Sea View Hospital 1070

WHITE PLAINS
White Plains Hospital 118

YONKERS
St. John's Riverside Hospital 189
*St. Joseph's Hospital 120
Yonkers General Hospital 189

NORTH CAROLINA

ASHEVILLE
*Asheville Mission Hospital 124
*Aston Park Hospital 75

BILTMORE
Biltmore Hospital 63

CHARLOTTE
Charlotte Eye, Ear, and Throat Hospital 25
Mercy Hospital 77
New Charlotte Sanatorium 110
*Presbyterian Hospital 110
*St. Peter's Hospital 78

DURHAM
Duke Hospital 456
*Lincoln Hospital 108
Watts Hospital 210

FAYETTEVILLE
Highsmith Hospital 100
*Pittman Hospital 85

GASTONIA
*City Hospital 54
North Carolina Orthopedic Hospital 141

GOLDSBORO
*Goldsboro Hospital 53

GREENSBORO
L. Richardson Memorial Hospital 60
St. Leo's Hospital 100
Sternberger Children's Hospital 40

GREENVILLE
*Pitt Community Hospital 36

HENDERSON
*Maria Parham Hospital 50

HICKORY
Richard Baker Hospital 35

HIGH POINT
High Point Hospital 75

KINSTON
Memorial General Hospital 35
Parrott Memorial Hospital 55

LEAKSVILLE
*Leaksville Hospital 31

LENOIR
*Caldwell Hospital 25

LINCOLNTON
Lincoln Hospital 45

LUMBERTON
*Baker Sanatorium 65
*Thompson Memorial Hospital 35

MT. AIRY
Martin Memorial Hospital 50

NORTH WILKESBORO
*Wilkes Hospital 25

OTEEN
Veterans' Administration Hospital 612

PINEHURST
Moore County Hospital 37

RALEIGH
Rex Hospital 126
St. Agnes Hospital 100

ROCKY MOUNT
Atlantic Coast Line Railroad Hospital 50
Park View Hospital 100

RUTHERFORDTON
Rutherford Hospital 64

SHELBY
*Shelby Hospital 50

STATESVILLE
Davis Hospital 54
Long's Sanatorium 56

TARBORO
Edgecombe General Hospital 48

WASHINGTON
Washington Hospital 35

WAYNESVILLE
*Haywood County Hospital 49

WILMINGTON
Bulluck Hospital 40
James Walker Memorial Hospital 150

WILSON
Moore-Herring Hospital 35

WINSTON-SALEM
City Memorial Hospital 235
North Carolina Baptist Hospital 108

WRIGHTSVILLE SOUND
*Babies' Hospital 40

NORTH DAKOTA

BISMARCK
Bismarck Hospital and Deaconess Home 140
St. Alexius Hospital 150

DEVILS LAKE
Mercy Hospital 58

DICKINSON
St. Joseph's Hospital 80

FARGO
St. John's Hospital 200
*St. Luke's Hospital 125
Veterans' Administration Hospital 57

GRAFTON
*Grafton Deaconess Hospital 43

GRAND FORKS
Grand Forks Deaconess Hospital 107
St. Michael's Hospital 70

MINOT
St. Joseph's Hospital 100
Trinity Hospital 220

VALLEY CITY
*Mercy Hospital 92

OHIO

AKRON
Children's Hospital 110
City Hospital of Akron 285
Peoples Hospital 192
St. Thomas Hospital 185

ALLIANCE
Alliance City Hospital 95

ASHTABULA
*Ashtabula General Hospital 93

BELLAIRE
City Hospital 50

CANTON
Aultman Hospital 160
Mercy Hospital 125

CHILLICOTHE
Veterans' Administration Hospital 614

CINCINNATI
Bethesda Hospital 304
Children's Hospital 150
Christian R. Holmes Hospital 48
Christ Hospital 218
Cincinnati General Hospital 850
Deaconess Hospital 175
Good Samaritan Hospital 536
Hamilton Co. Tuberculosis San. 360
Jewish Hospital 288
St. Mary Hospital 203

CLEVELAND
Babies and Childrens Hospital 147
Charity Hospital 301
City Hospital 1075
Cleveland Clinic Hospital 229
*Evangelical Deaconess Hospital 144
Fairview Park Hospital 96
Glenville Hospital 100
Grace Hospital 40
Huron Road Hospital 120
Lakeside Hospital 262
Lutheran Hospital 129
Maternity Hospital 300
Mount Sinai Hospital of Cleveland 270
Polyclinic Hospital 130
St. Alexis Hospital 220
St. Ann's Maternity Hospital 110
St. John's Hospital of Cleveland 212
St. Luke's Hospital 322
United States Marine Hospital 250
Woman's Hospital 123

COLUMBUS
Children's Hospital 100
*Grant Hospital 303
Hawkes Hospital of Mt. Carmel 243
*Mercy Hospital 85
St. Ann's Infant Asylum and Maternity Hospital 50
St. Francis Hospital 150
Starling-Loving University Hospital 276
White Cross Hospital 274

DAYTON
Miami Valley Hospital 396
St. Elizabeth Hospital 408
Veterans' Administration Hospital 1165

DOVER
Union Hospital 85

EAST AKRON
Springfield Lake Sanatorium 238

ELYRIA
Elyria Memorial Hospital and Gates Hospital for Crippled Children 154

FINDLAY
Home and Hospital of the City of Findlay 75

FREMONT
Memorial Hospital of Sandusky County 50

GALLIPOLIS
Holzer Hospital 57

HAMILTON
Mercy Hospital 220

LAKEWOOD
Lakewood Public Hospital 72

LIMA
Lima City Hospital 90
St. Rita's Hospital 116

LORAIN
St. Joseph's Hospital 120

MANSFIELD
Mansfield General Hospital 75

MARTINS FERRY
Martins Ferry Hospital 75

MASSILLON
Massillon City Hospital 105

MIDDLETOWN
Middletown Hospital 100

NEWARK
Newark Hospital 55

OBERLIN
Allen Hospital 36

PAINESVILLE
*Lake County Memorial Hospital 80

PIQUA
Memorial Hospital 60

PORTSMOUTH
Mercy Hospital 75
Portsmouth General Hospital 100
Schirrman Hospital 50

SALEM
Salem City Hospital 57

SANDUSKY
Good Samaritan Hospital 65
Providence Hospital 60

SPRINGFIELD
*City Hospital 135

STEUBENVILLE
Ohio Valley Hospital 125

TOLEDO
Flower Hospital 150
Lucas County Hospital 397
Mercy Hospital 119
Robinwood Hospital 103
St. Vincent's Hospital 387
Toledo Hospital 134
Women's and Children's Hospital 180

TROY
*Stouder Memorial Hospital 47

WARREN
*St. Joseph's Riverside Hospital 50
*Warren City Hospital 125

WAUSEON
DeEtte Harrison Detwiler Mem. Hosp 62

YOUNGSTOWN
St. Elizabeth's Hospital 300
Youngstown Hospital 450

ZANESVILLE
Bethesda Hospital 130
Good Samaritan Hospital 160

OKLAHOMA

ARDMORE
Hardy Sanitarium 44

BARTLESVILLE
Washington County Memorial Hospital 60

CLAREMORE
Claremore Indian Hospital 34

CLINTON
*Clinton Hospital 79

EL RENO
*El Reno Sanitarium 60

McALESTER
Albert Pike Hospital 61

MUSKOGEE
*Oklahoma Baptist Hospital 132
Veterans' Administration Hospital 400

OKLAHOMA CITY
Oklahoma City General Hospital 98
Reconstruction Hosp. & McBride Clinic 27
St. Anthony's Hospital 320
University Hospitals:
University Hospital } 425
Crippled Children's Hospital }
Wesley Hospital 175

PAWNEE
Pawnee-Ponca Hospital 47

PICHER
American Hospital 38

PONCA CITY
Ponca City Hospital 75

SHAWNEE
A. C. H. Hospital 34
Shawnee Municipal Hospital 93

TULSA
Morningside Hospital 250
St. John's Hospital 235

OREGON

ASTORIA
*Columbia Hospital 53
St. Mary's Hospital 75

CORVALLIS
Corvallis General Hospital 46

EUGENE
Eugene Hospital 68
Pacific Christian Hospital 96

MEDFORD
Sacred Heart Hospital 75

ONTARIO
*Holy Rosary Hospital 45

OREGON CITY
Oregon City Hospital 60

PENDLETON
St. Anthony's Hospital 82

PORTLAND
Dr. Robert C. Coffey Clinic and Hospital 81
Doernbecher Mem. Hosp. for Children 75
Emanuel Hospital 283
Good Samaritan Hospital 328
Multnomah Hospital 275
Portland Sanitarium 144
St. Vincent's Hospital 402
Shriners' Hospital for Crippled Children 60
Veterans' Administration Hospital 336

SALEM
Salem General Hospital 75

PENNSYLVANIA

ABINGTON
Abington Memorial Hospital 206

ALLENTOWN
Allentown Hospital 325
Sacred Heart Hospital 188

ALTOONA
Altoona Hospital ... 180
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ASHLAND
Ashland State Hospital ... 236
ASPINWALL, SHARPSBURG
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BEAVER FALLS
Providence Hospital ... 65
BELLEVUE
Suburban General Hospital ... 115
BETHLEHEM
St. Luke's Hospital ... 203
BLOOMSBURG
Bloomsburg Hospital ... 125
BLOSSBURG
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BRADDOCK
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BRADFORD
Bradford Hospital ... 100
BROWNSVILLE
Brownsville General Hospital ... 100
BRYN MAWR
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CANONSBURG
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CARLISLE
Carlisle Hospital ... 50
CHAMBERSBURG
Chambersburg Hospital ... 90
CHESTER
Chester Hospital ... 266
J. Lewis Crozer Homeopathic Hospital ... 100
CLEARFIELD
Clearfield Hospital ... 130
COALDALE
*Coaldale State Hospital ... 82
COATESVILLE
Coatesville Hospital ... 125
Veterans' Administration Hospital ... 483
COLUMBIA
*Columbia Hospital ... 75
CONNELLSVILLE
Connellsville State Hospital ... 106
CORRY
*Corry Hospital ... 48
DANVILLE
George F. Geisinger Memorial Hospital ... 180
DREXEL HILL
Delaware County Hospital ... 70
DU BOIS
Du Bois Hospital ... 56
Maple Avenue Hospital ... 70
EASTON
Easton Hospital ... 200
ERIE
Hamot Hospital ... 210
St. Vincent Hospital ... 213
FRANKLIN
*Franklin Hospital ... 57
GETTYSBURG
Annie M. Warner Hospital ... 60
GREENSBURG
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Royal North Sydney Hospital, Sydney
Royal Prince Alfred Hospital, Camperdown, Sydney
St. Vincent's Hospital, Sydney
Sydney Hospital, Sydney
VICTORIA
Alfred Hospital, Melbourne
Austin Hospital, Melbourne
Children's Hospital, Melbourne
Melbourne Hospital, Melbourne
Queen's Memorial Hospital, Melbourne
St. Vincent's Hospital, Melbourne
Women's Hospital, Melbourne

CHINA

Peking Union Medical College Hospital, Peking

FRANCE

American Hospital, Paris

NEWFOUNDLAND

Notre Dame Bay Memorial Hospital, Twillingate
St. Anthony Hospital, St. Anthony

NEW ZEALAND

Auckland Hospital, Auckland
Cashmere Sanatorium, Christchurch
Christchurch Hospital, Christchurch
Dunedin Hospital, Dunedin
Wellington Hospital, Wellington

URUGUAY

Gynecological Hospital (Pereira Rossell), Montevideo
Maternity Hospital (Pereira Rossell), Montevideo

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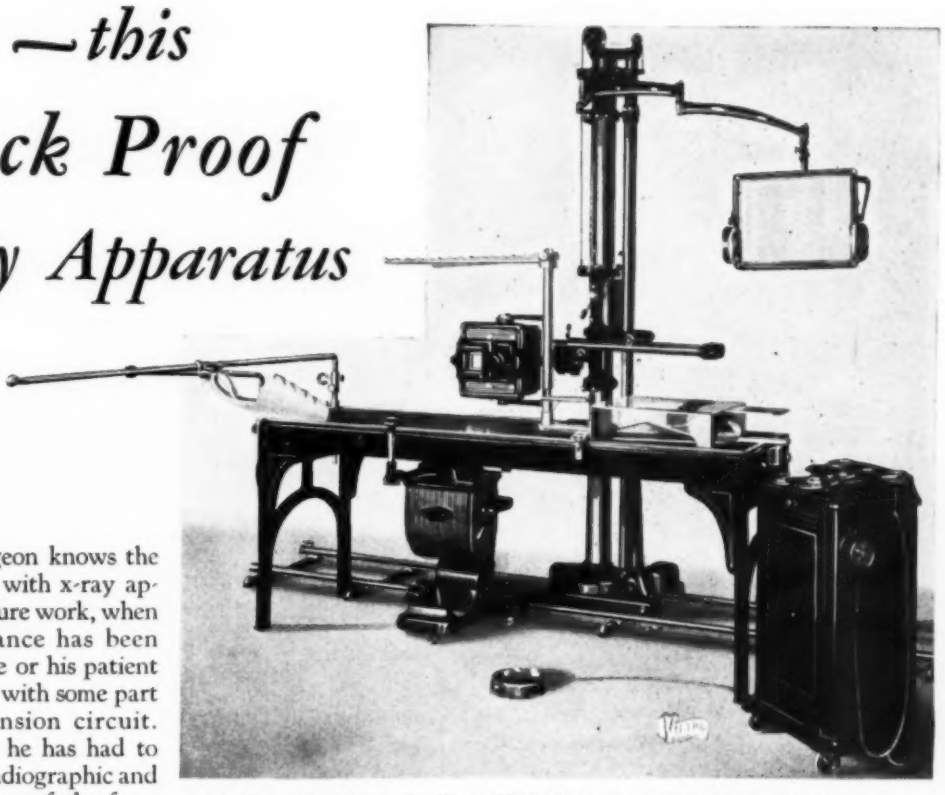

This illustration shows the Victor Model B-26 Shock-Proof X-Ray Unit in position for bi-plane fluoroscopy, with two tube heads, for directing the x-rays from below and crosswise the table, respectively. Note how the McCutchen Fracture Device is adapted to the table. The fluoroscopic screen (at upper right in picture) is swung down into position for observation in either plane; through the two-way foot switch on the floor the operator energizes either tube head at will.

EVERY surgeon knows the limitations with x-ray apparatus in fracture work, when constant vigilance has been necessary lest he or his patient come in contact with some part of the high tension circuit. Because of this he has had to forego certain radiographic and fluoroscopic views of the fracture, regardless of their importance to diagnosis and prognosis.

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NEWS OF THE MONTH

"Best Balanced" Program Given at A. C. of S. Conference

WHAT was called the best balanced program that has ever been presented at any hospital conference occupied four days at the new Waldorf-Astoria Hotel, New York City, October 12, 13, 14 and 15, where the fourteenth annual Hospital Standardization Conference of the American College of Surgeons was held. This was the first convention to be held at the new Waldorf which in appointments and service outrivals any hotel in the world. While nearly all of the traditions of the old Waldorf have been lost in the move uptown, there are enough reminders of the grandeur of a past generation to justify the continuance of the name.

On Monday morning in the Grand Ballroom the first session was opened with Dr. C. Jeff Miller, president, American College of Surgeons, presiding. In his opening remarks Doctor Miller strongly condemned those writers of "fiction" who have maligned both the medical profession and the hospitals and drew forth much applause from the audience which numbered about 500. He further told of the many ways in which the hospital could and did aid the medical school by its treatment of interns.

Doctor Kanavel Gives Address

The second speaker on the morning program was Dr. Allen B. Kanavel, professor of surgery, Northwestern University School of Medicine, Chicago, and president-elect, American College of Surgeons. He spoke upon the social ideas of the hospital and his paper will be published in an early issue of THE MODERN HOSPITAL. Dr. M. T. MacEachern, associate director, American College of Surgeons, then analyzed the hospital standardization survey which appears in this issue on page 95.

Dr. Franklin H. Martin, director, American College of Surgeons, also spoke on the present program of the college and what it hopes to accomplish during the next few years.

Dr. Frederic A. Besley, professor of surgery, Northwestern University School of Medicine, Chicago, presented a paper on the care of the ill and injured and how the American College of Surgeons was aiding in better hospitalization.

Means and methods of treating cancer in an approved hospital were outlined by Dr. Bowman C. Crowell, associate director, College of Surgeons, and Dr. Southgate Leigh, Norfolk, Va., urged the fellows of the college to aid in the work of standardizing hospitals.

Many Notables Address Meetings

An address of unusual eloquence was given by the Rev. Alphonse M. Schwitalla, S.J., dean, St. Louis University Medical School, and president, Catholic Hospital Association. Father Schwitalla idealized the work in all hospitals and urged his hearers not to forget the value of sound ethical practice.

Paul H. Fesler, president, American Hospital Association, closed the program with an impressive talk on the various problems that lie before the hospitals of America.

The afternoon session was also held in the Grand Ballroom and the first speaker was Dr. Donald Guthrie, chief surgeon, Guthrie Clinic, Robert Packer Hospital, Sayre, Pa. His paper appears in this issue of THE MODERN HOSPITAL, page 49. Dr. Lewis A. Sexton, superintendent, Hartford Hospital, Hartford, Conn., discussed Doctor Guthrie's paper. The second paper was given by John A. McNamara, executive editor, THE MODERN HOSPITAL, on a nationwide survey of hospital costs and charges and the percentage of occupancy at the present time. His paper will appear in an early issue of THE MODERN HOSPITAL. The paper was discussed by Dr. C. W. Munger, director, Grasslands Hospital, Valhalla, N. Y.

The third paper was given by Dr. Walter E. Dandy, Baltimore, Md., on the subject of sterilization and its importance in hospitals and his remarks were discussed by Dr. Walter E. Lee, Philadelphia.

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NEWS OF THE MONTH (Cont'd)

Dr. Alton Ochsner, professor of surgery, Tulane University, New Orleans, read a paper on the importance of the staff conference and this was discussed by Dr. Allan Craig, director, Charlotte Hungerford Hospital, Torrington, Conn. Janet F. Korngold, director of nursing, Touro Infirmary, New Orleans, told of the importance of efficient nursing and Dr. H. L. Foss, surgeon-in-chief, George F. Geisinger Memorial Hospital, Danville, Pa., discussed the systematic instruction and supervision of interns and residents.

On Tuesday the hospital section of the congress moved to the roof garden of the hotel and the first speaker on the program was Frank J. Walter, superintendent, St. Luke's Hospital, Denver, Colo. He spoke on the economic problems associated with an "open" hospital and his paper was ably discussed by Boris Fingerhood, superintendent, United Israel-Zion Hospital, Brooklyn, N. Y. C. J. Cummings, superintendent, Tacoma General Hospital, Tacoma, Wash., presented several ideas on the further utilization of hospital facilities and Dr. William H. Walsh, Chicago, discussed the cost of medical care from the standpoint of the hospital. Matthew O. Foley, editor, *Hospital Management*, gave a report on automobile accidents. Robert Jolly, superintendent, Baptist Hospital, Houston, Tex., closed the session with a talk on the promotion of good will and how to obtain it.

Trustees' Session Is Well Attended

On Tuesday evening a trustees' section was held which was well attended. F. L. Braman, president, board of trustees, Charlotte Hungerford Hospital, Torrington, Conn., was the first speaker and he outlined the responsibilities of the trustee. He was followed by Charles F. Neergaard, trustee, Carson C. Peck Memorial Hospital, Brooklyn, N. Y., who spoke on promoting a better understanding between the superintendent, the board and the staff.

The third speaker was Dr. S. S. Goldwater. hospital consultant, New York City, whose paper will appear in an early issue of THE MODERN HOSPITAL.

Howard S. Cullman, president, board of trustees, Beekman Street Hospital, New York City, and trustee of several other hospitals and allied interests, spoke on the application of business principles to hospitals. His paper will appear in an early issue of THE MODERN HOSPITAL.

The last speaker was Dr. J. Allen Jackson, superintendent, Danville State Hospital, Danville, Pa., and his topic was "What Do Hospital Trustees Expect From Their Superintendents?"

Wednesday was given over to a joint meeting with the Association of Record Librarians of North America and to a round table conference at which time many questions were propounded. Thursday was demonstration day, held at the Brooklyn Hospital in the morning and at St. John's Hospital, Brooklyn, in the afternoon.

Dietitians Enjoy Two Practical and Important Sessions in Toronto

Two interesting sessions on dietetics were held during the American Hospital Association meeting at Toronto, September 28 to October 2.

One meeting was held under the leadership of Fairfax Proudfit, University of Tennessee College of Medicine and Dentistry and Memphis General Hospital School of Nursing, and the other meeting was a round table on food service in hospitals conducted by Dr. Malcolm T. MacEachern, director of hospital activities, American College of Surgeons. Both meetings were interesting. At the round table session the discussion centered around the types of food service, both centralized and decentralized.

At the meeting conducted by Miss Proudfit, a paper on "Food Economics" was presented by Mary Harrington, director of dietetics, Harper Hospital, Detroit. This paper gave a discussion at considerable length of the various factors that are necessary in the planning of attractive menus at a reasonable cost. It appears elsewhere in this issue. A second paper on the "Importance of Food Clinics in Out-Patient Departments in Hospitals" by Frances Stern, Boston Dispensary, gave a vivid picture of the teaching of patients in an out-patient department.

Doctor MacEachern in his paper on "How Shall the Dietitian Fulfill Her Part in the Functioning of a Hospital?" gave an intimate description of certain food services he had seen through the South —for instance, the hospital that was using silver dishes entirely on the private room trays, and felt that it would prove economical in the end because of the reduction in breakage. Before a girl enters the dietetic profession, she should analyze her

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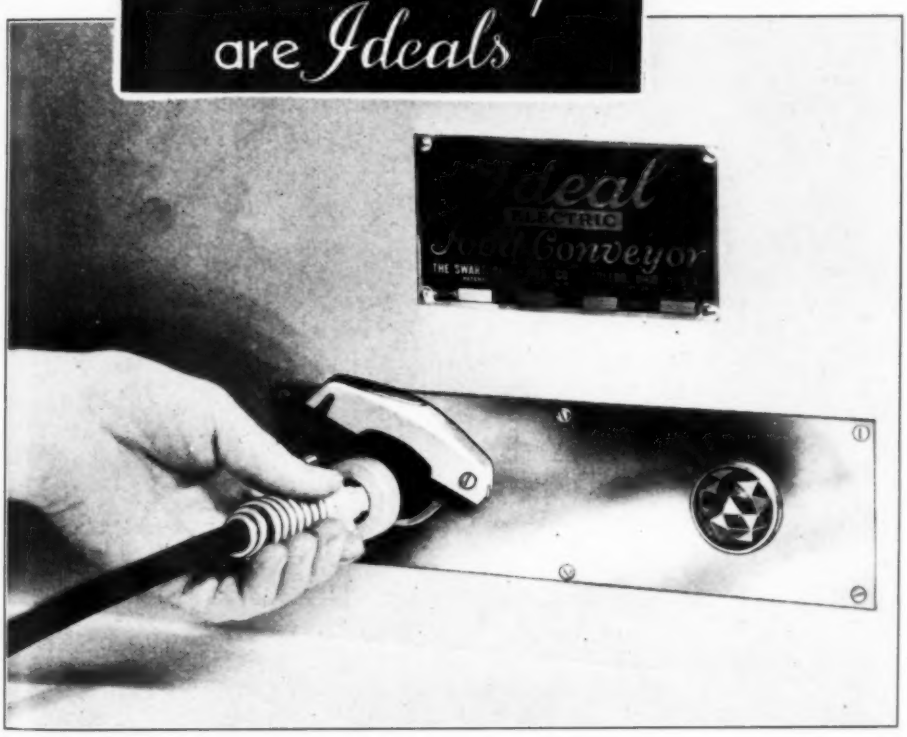

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NEWS OF THE MONTH (Cont'd)

strong points, to be sure that she has native administrative and business ability, he emphasized.

Lulu Graves, consultant in dietetics and dietotherapy, New York City, read a paper by Una Crawford, dietitian, Santa Rosa Hospital, San Antonio, Tex. Two points were extensively discussed: that it is possible for the dietitian to change the community's idea that the hospital is a dreadful place instead of a cheery haven, and that diets should be carefully explained to the patients. She said that the patients so often leave the hospital with a "diet order and confusion," only to abandon the idea of diet and finally return to the hospital in a worse condition than when they entered the first time. Miss Parks followed with a discussion, and stressed the cultural and scientific background a successful dietitian must have. The dietitian, she said, has the opportunity of "selling the hospital to the public."

At the round table discussion on food service, a number of interesting points were brought up. S. Margaret Gillam, University Hospital, Ann Arbor, Mich., classified the two types of service—centralized and decentralized—and explained the meaning of each.

What Constitutes Good Food Service

Mary Harmon Risti, Butterworth Hospital, Grand Rapids, Mich., talked on the "Basic Consideration in Organizing an Efficient Food Service." She outlined a satisfactory food service as one that serves good food, has good service and is economical. She stressed the need for a competent dietitian invested with proper authority, and included in this authority the power to supervise the entire food service from the purchasing of the food to the serving of the tray to the patient. C. J. Decker, superintendent, Toronto General Hospital, Toronto, told of the food service in the hospital and illustrated it by an interesting motion picture. Dr. John G. Copeland, superintendent, Albany Hospital, Albany, N. Y., told of Albany Hospital's experience with the central service, and emphasized the fact that noise and disorder were reduced and that the nurses were relieved of considerable work. The question was brought up in regard to the cost of central service. Doctor Copeland felt that it had actually reduced his food cost and explained how. Mr. Decker supplied the information that his cost of preparation and service amounted to 5.004 cents a meal.

Southern California Dietitians to Meet November 2

The southern section of the California State Dietetics Association will hold a dinner meeting at the Women's Athletic Club, Los Angeles, November 2. Lydia M. Kellogg, director, Pasadena Cafeteria Association, is to speak on administrative problems in food service and in personnel management.

Fifty-eight persons attended the lecture given by Dr. H. A. Burkes at the meeting on October 5. Doctor Burkes' subject was "Colitis."

Samuel Mather, Philanthropist of Cleveland, Dies Suddenly

Samuel Mather, president, Lakeside Hospital, Cleveland, died suddenly on October 18. Mr. Mather, who was eighty years old, was a pioneer in the vast empire of Great Lakes shipping, mining and steel manufacture.

Quietly and unostentatiously, Mr. Mather gave a fortune to philanthropies. Among those to share in his generosity were Western Reserve University, Cleveland, to which he gave more than $4,000,000, and Lakeside Hospital, to which he gave $1,000,000 outright. It was largely due to Mr. Mather's leadership that the group of institutions known as the University Hospitals, Cleveland, was brought into association for a larger service to the city and to the hospital world at large.

Three-State C. H. A. Conference Held in San Francisco

The California, Arizona and Nevada conference of the Catholic Hospital Association was held in St. Mary's Hospital Auditorium, San Francisco, October 27, 28 and 29.

The program was featured by round table discussions conducted by Dr. M. T. MacEachern, associate director, American College of Surgeons, G. W. Curtis, San Francisco, and the Rev. Robert E. Lucey, director of Catholic hospital activities, Long Beach, Calif.

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NEWS OF THE MONTH (Cont'd)

Dr. Winford H. Smith, director, Johns Hopkins Hospital, Baltimore, who was elected a trustee of the American Hospital Association to fill the unexpired term of Dr. George F. Stephens who was elected president-elect.

Nursing League Offers Choice of Two Calendars

The National League of Nursing Education this year is issuing two 1932 calendars instead of one. One is an "artistic" calendar that may be used as a gift; the other is a useful calendar in the form of an engagement pad with a weekly page, with space for morning and afternoon appointments each day. At the bottom of the pad are significant and helpful quotations from famous nursing leaders.

The Nursing Saints Calendar has charming pictures of many of the saints from nursing history, beginning with Giotto's fresco of St. Francis and the Birds, in colors.

The price of the Nursing Saints Calendar will be $1 for a single copy, but only seventy-five cents a copy on all orders of fifty or more, delivered in one shipment. The engagement pads will be only fifty cents each, or forty cents if ordered in quantities of twenty-five or more delivered in one shipment.

The proceeds of the sale are used to help maintain and develop the activities of the National League of Nursing Education, which tries to help in the preparation of better nurses for the community.

Pennsylvania Association to Meet in Pittsburgh, March 15-17

The Hospital Association of Pennsylvania will hold its next annual conference in Pittsburgh, March 15, 16 and 17, 1932, it was decided at a recent meeting of the association's trustees.

Illinois State Nurses' Association Holds Four-Day Meeting

The Illinois State Nurses' Association met for a four-day session in Chicago, October 13 to 16. Leaders in the nursing profession from all over the country were present to contribute to the success of the well planned program. Of much interest was the crowded luncheon meeting held on the second day, at which Dr. C.-E. A. Winslow, professor of public health, Yale Medical School, spoke on "Who Is Responsible for Educating the Nurse?" Mrs. Ernest E. Irons, president Central Council of Nursing Education, presided at this meeting.

Prominent speakers at the other sessions included: May Kennedy, president, Illinois State Nurses' Association; Ada Belle McCleery, superintendent, Evanston Hospital, Evanston, Ill.; Laura R. Logan, dean, Cook County School of Nursing, Chicago; Roy White Bixler, registrar, University of Chicago; Ella Best, field secretary, American Nurses' Association; Edna L. Foley, superintendent, the Visiting Nurse Association of Chicago; Lucy Minnigerode, superintendent of nurses, United States Public Health Service; Janet Geister, director at headquarters, American Nurses' Association, New York City; Ruth Emerson, director, social service department, University of Chicago Clinics, and James T. Nicholson, manager Chicago Chapter, American Red Cross.

An interesting exhibit of hospital and medical supplies was a feature of the meeting.

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NEWS OF THE MONTH (Cont'd)

Boston Has Classes in Spiritual Teaching for Nurses

Special classes in spiritual teaching for nurses are now in progress in Boston. The teacher is Jane H. Sagendorph.

The course will attempt to create a closer cooperation between nurses and physicians in their plan for the patient's recovery, according to the *Trained Nurse and Hospital Review*. Many types of patients require scientific treatment along lines that might be considered spiritual psychology. The lessons will include a study of the possibilities of suggestion, its dangers as well as its values, methods for relief from fear and pain acquired through the relaxation of the nervous system and a study of the Scriptures with a view to using this knowledge as an aid to rehabilitation. The teaching will be on a nonsectarian basis. The classes started October 1.

Mrs. Sagendorph has had ten years of practical experience among the patients of the New England Deaconess Hospital.

Record Librarians of Chicago and Cook County Meet

Record librarians of Chicago and Cook County met at St. Joseph Hospital, Chicago, on the evening of September 30 where they heard a discussion of case records from the viewpoint of specialists. Those appearing on the program were Dr. Austin A. Hayden, Dr. L. W. Martin and Dr. Charles Schott. A discussion of the minimum standard of the American College of Surgeons was given by Dr. Hugh McKenna and Dr. F. O. Fredrickson.

Famous Old Beaujon Hospital to Be Razed

The old Beaujon Hospital in the west end of Paris is to be razed and a new, eleven-story $3,200,000 institution is to take its place. The new hospital will be built at Clichy, nearly two miles from the site of the old hospital.

It will have 1,006 beds, 350 of which will be in single rooms. It will have a maternity, otorhinolaryngologic and ophthalmologic services, a department for venereal diseases and a department for the tuberculous. The department for the tuberculous will occupy the two top stories.

Dr. Franklin H. Martin Is Honored by Italy

Dr. Franklin H. Martin, director general, American College of Surgeons, was honored by the Italian Government at the closing session of the American College of Surgeons meeting in New York City when he was decorated with a medal bearing the title: "Commander of the Order of the Crown of Italy." The medal was presented to Doctor Martin in recognition of his work in organizing a base hospital at Vicenza, Italy, during the World War.

Dr. J. Whitridge Williams, World Famous Obstetrician, Dies

Dr. John Whitridge Williams, Johns Hopkins University, Baltimore, world famous obstetrician, died on October 21 at the university hospital, following an operation for a minor abdominal disorder.

Doctor Williams was celebrated as a maternity expert. He was chief obstetrician at Johns Hopkins Hospital and formerly was dean of the institution's medical school. He was sixty-five years of age.

Third Unit Planned for Medical Group in Chicago

Tentative plans have been completed for the third unit in the $5,000,000 Chicago west side medical group of the University of Illinois. This will be a new medical and dental college. It will be approximately the same size as the $1,500,000 medical and dental college laboratories that are now under construction. Work will probably be started this year.

It is planned to have the entire medical group of the University of Illinois completed prior to the World's Fair. Two units are now in use, the building containing the research laboratories and the research hospital and the nurses' home.

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The NEW COLT AUTOSAN Model "R-1"

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PERSONALS

A. O. FONKALSRUD, superintendent, Sioux Valley Hospital, Sioux Falls, S. D., is the new superintendent, Mansfield General Hospital, Mansfield, Ohio. The REV. C. M. AUSTIN has been elected to succeed Mr. Fonkalsrud at Sioux Falls.

FRANCES WEST and ELEANOR HURD, superintendent and assistant superintendent, respectively, of the Charlotte Hungerford Hospital, Torrington, Conn., have resigned. DR. ALLAN CRAIG, medical director, now becomes director in full charge of all departments of the hospital.

DR. F. A. MATYAS, for the past four years pathologist and roentgenologist at the Angelus Hospital, Los Angeles, has recently been appointed superintendent of the hospital.

FRANK B. TOWNE has resigned as president of the Holyoke Hospital, Holyoke, Mass., which organization he has directed for the last eleven years.

NINA B. GAGE has resigned as executive secretary, National League of Nursing Education, to develop a Negro school of nursing at Hampton Institute, Hampton, Va.

MRS. A. B. HALL, superintendent, Americus and Sumter County Hospital, Americus, Ga., has resigned.

ROXANNA GRAY, formerly superintendent, Latrobe Hospital, Latrobe, Pa., is now serving as head of the Canonsburg General Hospital, Canonsburg, Pa., succeeding MRS. CLARENCE GIBSON.

LUCILLE CROWELL, Minneapolis, has been named superintendent, Northfield Hospital, Northfield, Minn., to succeed MAGDA BJORNDAHL.

DR. NATHAN PORTER COLWELL, since 1906 secretary of the Council on Medical Education, American Medical Association, has been retired.

DR. MAX CUTLER, formerly director of cancer research, division of cancer, Department of Hospitals, New York City, has been chosen to direct the new tumor clinic at Michael Reese Hospital, Chicago.

SISTER M. HERMAN JOSEPH, superintendent of nurses, St. Agnes' Hospital, Philadelphia, has been appointed to fill a similar position in St. Francis' Hospital, Trenton, N. J. SISTER M. ROBERTA is in charge of the hospital's social service department which was opened on October 1.

DR. H. S. STALKER is the newly appointed assistant superintendent, Vancouver General Hospital, Vancouver, B. C., succeeding DR. R. E. SEYMOUR, who was recently named general superintendent, Saskatoon City Hospital, Saskatoon, Sask. DR. A. K. HAYWOOD is superintendent of Vancouver General Hospital.

G. W. OLSON, superintendent, California Hospital, Los Angeles, has been appointed Swedish vice-consul in Los Angeles.

NAN H. EWING, superintendent of nurses and principal of the school of nursing, Ravenswood Hospital, Chicago, is now connected with the school of nursing of Cook County Hospital, Chicago. MRS. EWING began work in her new position November 1. MARGARET MOSIMAN, her assistant at Ravenswood Hospital, has also recently joined the staff of Cook County Hospital.

ADA M. DECKER is the newly appointed superintendent of the Dixon Public Hospital, Dixon, Ill.

RUTH CLEMENTS was recently appointed superintendent of Emergency Hospital, Annapolis, Md.

MRS. NORMAN PREVATT has been appointed as superintendent of the Lee County Hospital, Sanford, N. C.

DR. C. I. WYNEKOOP has been appointed superintendent of Lake View Hospital, Chicago, succeeding J. Dewey Lutes.

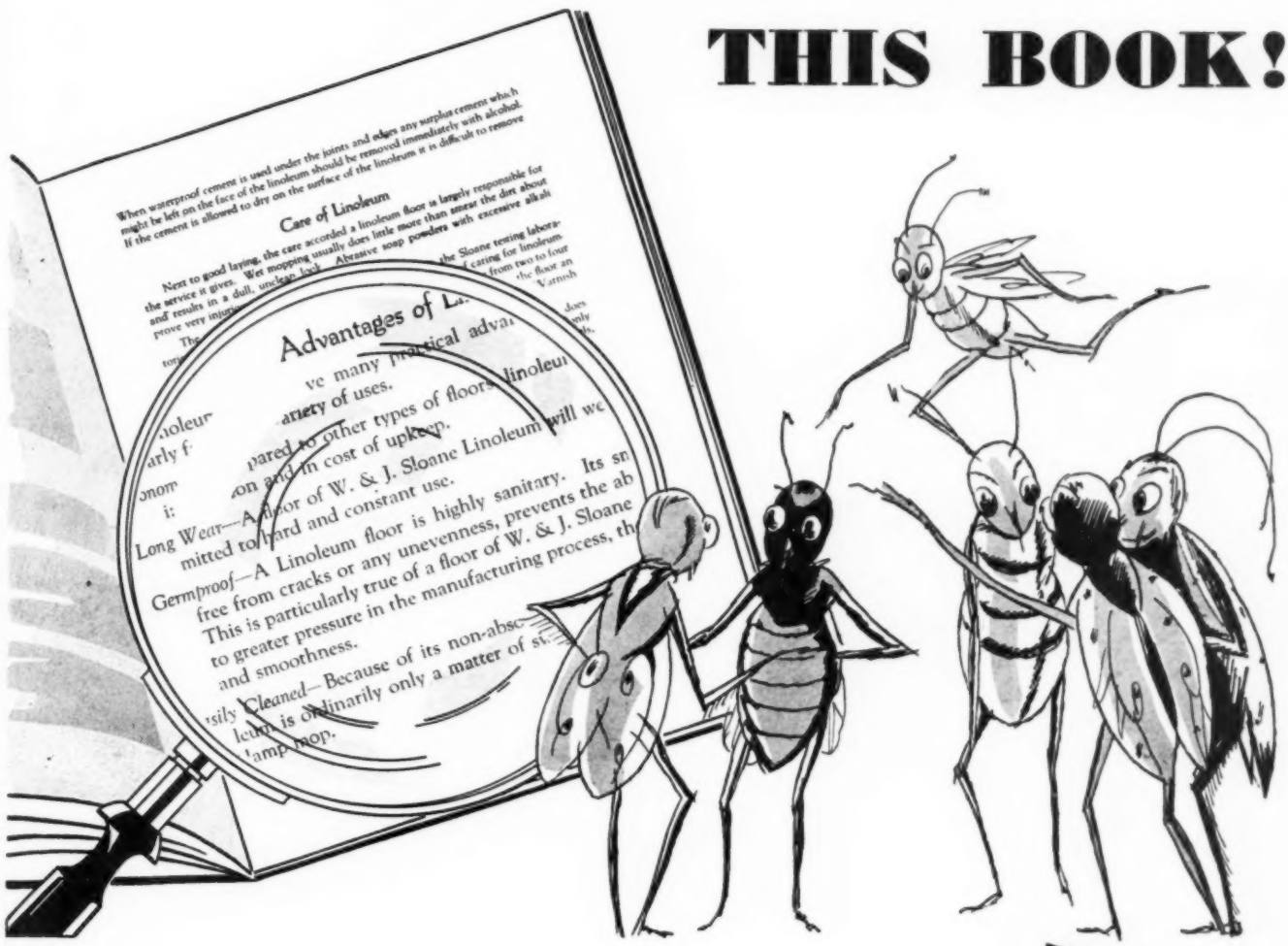
L. GWYN ADAMS is the newly appointed superintendent, Kleberg County Hospital, Kingsville, Tex. Miss Adams was formerly clinical instructor in the University of Texas school of nursing which is connected with the John Sealy Hospital, Galveston.

H. E. HIVEY has been named superintendent of Miramichi Hospital, Newcastle, N. B., Canada.

DR. IRVING S. HAYNES is the new superintendent, Physicians Hospital, Plattsburg, N. Y.

K. ETHEL GRAY is the new superintendent, Kootenay Lake General Hospital, Nelson, B. C. MISS GRAY was formerly superintendent of nurses, Colonial Hospital, Rochester, Minn.

The Hospital Board MUST *NEVER* SEE THIS BOOK!


When waterproof cement is used under the joints and edges any surplus cement which might be left on the face of the linoleum should be removed immediately with alcohol. If the cement is allowed to dry on the surface of the linoleum it is difficult to remove
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Next to good laying, the care accorded a linoleum floor is largely responsible for the service it gives. Wet mopping usually does little more than smear the dirt about and results in a dull, unclean look. Abrasive soap powders with excessive alkali prove very injurious
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free from cracks or any unevenness, prevents the ab
This is particularly true of a floor of W. & J. Sloane
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lenin is ordinarily only a matter of st
damp mop.

The microbes in City Hospital are terrified! They've discovered the paragraph in the W. & J. Sloane Linoleum Book that spells doom for microbes. Life won't be worth living if their Hospital Board ever gets hold of this book and decides to modernize and sanitize those old-fashioned floors. No wonder they are anxious to keep the news from you. But — psst! — we'll smuggle the book to you through the mail if you say the word.

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W. & J. SLOANE LINOLEUM

NEWS OF THE MONTH (Cont'd)

DR. H. P. MAHAN, assistant superintendent, State Sanatorium, Statesan, Wis., has been appointed medical director, American Legion Hospital, Battle Creek, Mich.

HELEN E. EYK has succeeded S. JULIA SHEPARD as superintendent of the Montevideo Hospital, Montevideo, Minn.

MOTHER LAURENTIA, since 1926 superintendent of St. Joseph's Hospital, Kansas City, Mo., died October 20 following a long illness.

DR. CRUM EPLER is the new director at Woodcroft Hospital, Pueblo, Colo.

SISTER HUMILIATA, formerly superintendent, St. Therese's Hospital, Waukegan, Ill., has been appointed superintendent of St. Mary's Hospital, Watertown, Wis.

MARGARET POSZ recently accepted the position of superintendent of Genn Hospital, Wamego, Kan. She was previously connected with the Cushing Memorial Hospital, Leavenworth, Kan., as supervisor.

CHARLOTTE A. BARNEY has been appointed superintendent, North Louisiana Sanitarium, Shreveport, La. Mrs. Barney was formerly at The Lady of the Lake Sanitarium, Baton Rouge.

SISTER MARY CYRIL, formerly superintendent, St. Mary's Hospital, Pueblo, Colo., has been appointed superintendent of Good Samaritan Hospital, Cincinnati.

DR. ELBERT M. SOMERS has been appointed physician-in-charge, Westport Sanitarium, Westport, Conn.

SISTER M. SUITBERTHA is the new superintendent of Mary Immaculate Hospital, Jamaica, N. Y.

ADELAIDE F. BARTLETT was recently named superintendent of the Corry Hospital, Corry, Pa.

New Veterans' Hospitals Planned

Two construction projects relative to veterans' hospitals have been approved by the Veterans' Bureau, it was announced recently. One provides for a hospital at Coatesville, Pa., with facilities for the installation of 474 additional beds, at a cost of $1,050,000, and the other is in connection with a project at Bedford, Mass., and provides for installation of 146 additional beds, to cost $320,000.

U. S. Public Health Service Urges Training of Health Officials

State health departments seem to be the best agencies to sponsor a plan of training public health administrative officers, although the teaching of such officers should be done under the management of educational institutions, the U. S. Public Health Service states, in emphasizing the need of training administrative health officials.

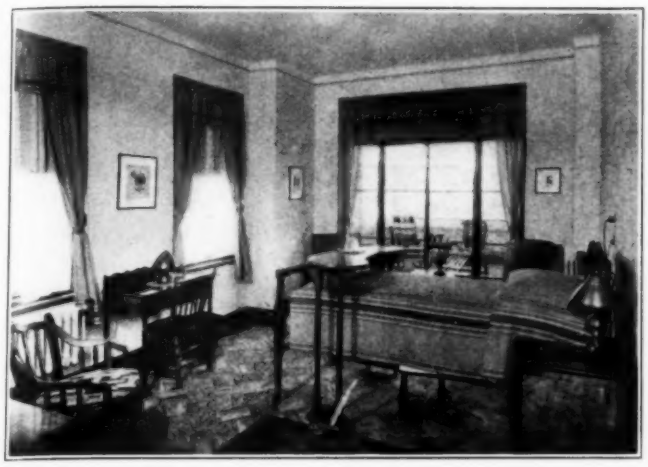
An approach to the whole subject of training on a comprehensive basis was begun in Tennessee during the spring of 1928 under the joint auspices of the department of preventive medicine of Vanderbilt Medical School and the Tennessee State Department of Public Health. Experience up to the present time indicates that it will be successful.

It should be possible to adopt this plan or certain modifications of it in any state if the state health department participates in local health service and can affiliate with a teaching institution which is in a position to assume responsibility for the administration of the course as well as a major part of the actual teaching.

First City Owned Health Center Opened in New York City

The first city owned health center has been opened in New York City, two sites for the new city built health centers have been secured, one site has been approved with action on it pending in the board of estimate and apportionment, and two other sites have been recommended and are now under consideration by the comptroller's office, Shirley W. Wynne, health commissioner, announced at a special meeting of the committee on neighborhood health development.

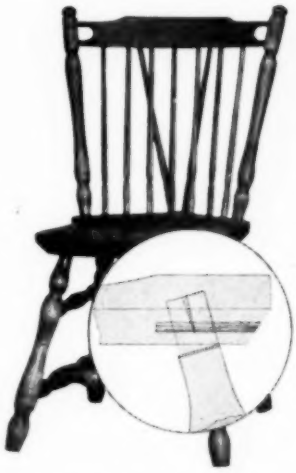
The commissioner further disclosed that Mayor Walker had urged the department of health to anticipate the 1932-1933 health center program for eight additional centers by selecting sites for them now and getting the centers built as quickly as possible in order to help relieve the unemployment situation. Doctor Wynne said that he had already acted in accordance with the mayor's request, and had submitted the recommendations.



Your Furniture Dollars Should Buy More than Just Good Furniture!

FINE, well-built furniture for home use is one thing. Fine furniture for hospital use, built specifically for this purpose by Stickley, however, is quite a different product—more sturdily constructed to withstand the rigors of institutional demands—designed particularly to promote sanitation and ease of cleaning without in any way sacrificing beauty—finished by a patented process that makes its lustrous surface practically impervious to alcohol, iodine, medicines, etc.—incorporating many exclusive features of convenience, comfort and utility evolved in our ten years of specialization in wood furniture for hospitals.

And for these reasons Stickley furniture not only is more satisfactory, but also considerably more economical in the long run. By all means get acquainted with Stickley Hospital furniture and the expert planning service that goes with it before investing in furnishings.



An example of the extra durability built into Stickley furniture is the Wedge-Lock joint construction illustrated above. The post is not merely glued into place, but permanently locked there by the wedge in the end and the pin driven through it from the edge of the seat.

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NURSING AND THE HOSPITAL

Conducted by M. HELENA MCMILLAN, R.N.
Director, School of Nursing, Presbyterian Hospital, Chicago

Taking the Profit Out of Nursing Education

By E. P. LYON, Ph.D.
Dean, University of Minnesota Medical School, Minneapolis

SINCE under the organization of the University of Minnesota the nursing school is part of the medical school, the dean of the medical school ought to know something concerning nursing education. Through necessity therefore I have studied nursing education, read about it, talked about it with many people and latterly have sat at the knees of our Miss Densford, like a dutiful child, for many an hour.

I have found that nursing education is an elusive and complicated pattern. I confess that even now I do not know much about it, but I shall venture to express certain opinions.

One thing to which I have directed my mind is the organization and control of nursing schools. I find that they are adjuncts of hospitals, that few of them have any relation to other types of organized education. Well, medical schools also are organized in relation to hospitals and depend on hospitals for indispensable facilities. But here I find a most significant, a most crucial difference. The doctors control the schools of medicine, the nurses do not control the schools of nursing.

The nursing schools are not in the hospitals because the hospitals have a high sense of educational responsibility but because the hospitals have patients to be cared for and can secure this care cheaper by having training schools than they can without. A hospital recognizes as its primary function the care of the sick. If incidentally the hospital can aid education it is willing to do so provided it doesn't cost the hospital anything.

Ask any hospital superintendent, ask any hospital trustee whether he would continue to maintain a training school if it cost the hospital more than the service of the pupils is worth. I venture to say that ninety-nine times out of a hundred the reply will be, "No." Such a reply would be dictated not by lack of interest, but by lack of money. It is hard enough to keep the average hospital going. Few of them make money; most of them are money eaters, not able to live on what the patients pay. They run training schools to save money.

These two facts—that nurses do not control their educational institutions and that hospitals do control them and run them to save money—are at the basis of nearly all that is wrong with nursing and with nursing education.

Who Gets the Money That Is Saved?

The training schools save the hospitals money. That is what we say, and we condone the whole situation on that ground. When money is saved, however, some one saves it or, let us say, gets it. A bank does not save money for its customers. It is the depositors themselves who saved the money that is in the bank. If a corporation saves money, it goes eventually to the owners of the corporation. Now who gets the money that the hospitals save by having nurse training schools? This is a vital question.

No one, of course, takes cash out of the hospital till and transfers it to his own pocket, but this is the way that an equivalent transfer is accomplished. Suppose a private hospital doing a certain amount of charity service has to raise $50,000 a year in donations from its wealthy clientele. If the nursing school saves this hospital $10,000 a year the school is really giving the hospital $10,000 that otherwise it would have to solicit from its wealthy friends. The work of the nursing students leaves $10,000 in the pockets of the rich patrons of the institution that they would have to give up if the institution were to continue on the same

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This famous toaster costs little to buy and little to operate

4-slice Toastmaster, shown here, makes 208 slices of toast per hour. **$100.**
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How much Toastmaster's intermittent, flexible operation will save is shown by actual meter readings taken in many different installations. These show that the saving with Toastmaster, in comparison with other methods of toasting, runs as high as 59%, or sufficient to pay for your toaster each year.

Besides, Toastmaster makes better toast, electric toast, toast that stays hot till it's served and fresh and crisp after it's served. It's never dry, never hard, never burned. Nurses and maids can make it while preparing other foods and getting patients' trays ready.

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scale. The rich pay less for the privilege of being patrons of the hospital and for the wholesome feeling of being benevolent than they otherwise would.

Or let us suppose that an institution is living on its receipts from patients, neither losing nor making money. If the training school saves the hospital $10,000 that it would otherwise have to take in and spend in order to break even, then the patients are profiting from the training school, because if it were not there, the patients would have to pay a higher rate. The patients get the $10,000.

Or look at a public hospital, a city hospital supported by taxes. The governing board or city council appropriates as little as will maintain the hospital on such a scale as the community approves. If the training school saves that hospital $10,000, it is saving taxes. No wonder the city fathers approve of the city nursing school. All other city schools cost tax money, eat up a large proportion of tax money. Here is one type of education that not only costs nothing but saves taxes for other purposes. If I were a councilman I would say, "Let us by all means have more and larger nursing schools. If we only had enough such schools we could support the whole city government including public schools and abolish all taxes."

There is only one more possible case, the almost unknown one in which the hospital makes money. If the nursing school saves $10,000, the owners get $10,000 more in dividends than they otherwise would.

The Fundamental Defect

The training schools save the hospitals money. The money that is saved goes in the long run to patients, to philanthropic donors, to taxpayers or to owners or some combination of these, on the assumption, always, that the hospital is conducted on the same scale whether or not it has a training school. In any case the saving does not go to the nursing students or into their education. This is the fundamental defect of nursing education, the fundamental injustice that is being done to the nursing profession.

Nursing education will never be as efficient as it should be nor will it occupy the honorable status it should until the profit is taken out of its educational institutions. Profit is all right in business, at least so says our social philosophy, but in education it is wrong in principle and always has a bad effect on the quality of instruction supplied.

Nurses will never be able to control their educational institutions, they will never be able to regulate the number of such institutions, the character of the curriculum, the hours and type of practical experience, the kind and number of candidates admitted or graduated until the profit is taken out of nursing education.

The Grading Committee made a serious mistake when it stated in Part 3 of its report that there is no objection to hospitals making money on their training schools if the education provided is satisfactory. There is some saving grace in the proviso, for those really acquainted with education know that a fully satisfactory course cannot be supplied from the simultaneous earnings of students. Nevertheless, the statement is reactionary and will open the way for specious arguments for the continuation of the present system. The profit, all the profit, must come out of nursing education before the nurses can control and vivify their educational processes.

Too Many Schools!

A second result, as I have just implied, of the ownership and control of nursing schools by hospitals is that there are far too many schools. I was amazed recently to learn that they number about 2,200. Over two thousand nursing schools in the United States and seventy-six medical schools! Twenty-two thousand nurses graduated in 1930 to join the ranks of the unemployed! The situation would be comical if it were not tragic.

When medical education was at its worst, about twenty-five years ago, there were 160 medical colleges, far too many and many far too poor. Even at the worst, however, these schools were controlled by medical men, amenable to medical opinion, influenced by medical tradition. When the profession as a whole, through the Council on Medical Education and the Flexner Report, became aware of the conditions in medical education, self-respecting doctors could no longer run nor remain connected with a profit making college. An era of closing poor schools, of mergers and of transfers to universities ensued. In a few years the situation was changed completely. But in nursing, the building of new hospitals and the founding of new nursing schools goes merrily on. The more hospitals, the more pupil nurses, the more graduate nurses. But the more hospitals, the fewer sick persons outside of hospitals, the narrower the field for the graduate after she is out. Undoubtedly this is true in spite of the larger number of sick cared for by trained nurses now as compared with former times.

Suppose every business or industry needing ten or more stenographers should say: "We will have a stenographic school; we will have the president's secretary do the teaching (that will cost us nothing), the vice-president's and treasurer's secretaries will help (also without expense to us); we will keep our pupils three years and after the first

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Armour's Surgical Ligatures are supplied as follows: Plain and Chromic, boilable and non-boilable, Regular (60-inch) lengths, sizes 000, 00, 0, 1, 2, 3, and 4. . . . Iodized, non-boilable, Regular (60-inch) lengths, sizes 00, 0, 1, 2, 3, and 4. . . . Plain and Chromic, boilable, Emergency (20-inch) lengths, sizes 000, 00, 1, 2, 3, and 4.

six months expect them to do full work—including Sundays; we will give them board, lodging, laundry—and a swimming pool; at the end of three years we will have a little celebration, perhaps in a church, and give each one a cheap gold pin; we will then take in a new group of girls to do our work; we will recommend our graduates to people who need stenographers; regretfully we may hire a few ourselves when we can't get student stenographers enough." Imagine the condition of affairs in the stenographic profession! And isn't this a fair if somewhat high-lighted picture of nursing education as it actually exists at the present time?

What Pupil Nurses Earn

How much do the pupil nurses earn—how much do they save for the patient, the philanthropic donor, the taxpayer, the owner? Few studies have been made, and most hospitals do not know. Phoebe Gordon, an instructor at the University of Minnesota school of nursing, has studied this matter for the University Hospital and for the Miller and Northern Pacific Hospitals, St. Paul. Her figures, which no one has disputed, show that if the pupil nurses were allowed 35 cents an hour for their work after the preliminary period, each one would earn between $100 and $150 a year over and beyond all that is expended for her board, lodging, instruction and every expense connected with her education. Be sure to get this straight: If the hospitals paid these girls 35 cents an hour, which is less than one usually pays a maid, and then if each girl paid back to the hospital and to the university every cent that is spent on her for education, maintenance, uniforms and even her graduation pin, nevertheless the girl would take away with her at least three hundred dollars in cash when she graduated. What really happens is that she takes away a piece of paper called a diploma and leaves that $300 behind in the pockets of the patients, the taxpayers, the philanthropists and the owners.

This $300—if that be the right figure—that is earned by each student nurse during her course, if spent on her education, would entirely change the character of nursing education. Even then the student would be earning her entire education; it would cost the hospital nothing, the public nothing. Point to any other example like it if you can.

As a parallel case I studied the dental college at the University of Minnesota. Under supervision and instruction, the students do dental work for patients who come to the college. The university collects small fees for such a service. I find that the receipts for last year from this source were about $50,000, while the material used amounted to about $30,000. The difference, $20,000, may be looked upon as the earnings of the students. What became of this money? It went to help support the dental college, that is, it went toward the education of the students who earned it, and with it went $47,000 collected from the students for tuition and about $63,000 of university funds. By university funds I mean tax money appropriated by the state legislature.

In the same year the pupil nurses at the University Hospital saved the hospital around $20,000 above all expenses for maintenance and education, if their time is calculated at 35 cents an hour. Did this amount go into nursing education, as the dental students' earnings went into dental education? It did not. It saved the taxpayers of the state of Minnesota that much, or it saved the patients that much. Not a cent of it went into nursing education. Yet we speak of a "university" school of nursing!

I recognize the fact that our hospital could not have paid more for nursing education last year than it did—the appropriation for the hospital would not permit it—nor did we feel able to raise the fees of the poor people who came there. We are victims of the tradition, the stupid, selfish tradition, that provides that profit from nursing students must go to support our patients. This does not alter the fact nor modify the glaring contrast between the state's support of dental education on the one hand and the support of the state's hospital through nursing education on the other.

Some of my friends view the situation with equanimity. They say that others are exploited besides pupil nurses; that interns are exploited; that assistants and young instructors in the university are exploited. They talk of the valuable diplomas the nurses will get. They point to the advantages of training school life, speak of the protection afforded young girls during formative years, extol the habits inculcated, dilate upon the excellent (?) preparation for marriage, which will be the ultimate state of many of the nursing students. They talk a good deal like our proslavery ancestors who were wont to condone slavery by speaking of the many masters who protected their slaves and treated them kindly.

Comparing Nursing With Other Education

I can't understand this point of view. The fact that in all other forms of education (at least for all students who are to engage in service as contrasted with business) more is spent than the student pays, while in nursing education the student earns more than she gets as education, revolts my feelings of justice and I want to do something about it. I ask myself, "Can anything be done?" I go over the cards the nurses hold with a view to

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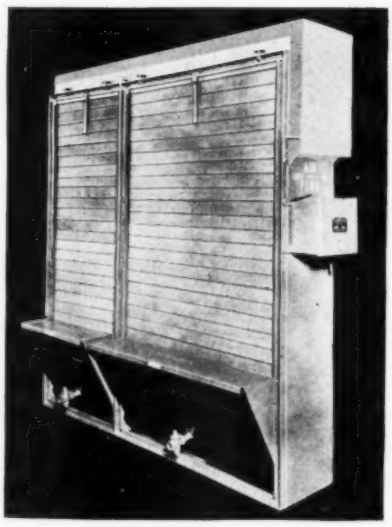

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seeing what their chances are of winning the game and securing what they earn and using this money for more adequate educational opportunities. The hand is not strong and there are few trumps.

The Ten Spot in the Nurses' Hand

First, there is the Grading Committee. I place the Grading Committee not higher than a ten spot at most in the hand the nurses have to play. The committee is too timid, too ladylike. Contrast its confetti pronouncements with the bombshells of the Flexner Report on medical schools. "Everything you tell us," says the Grading Committee, "will be regarded as confidential." Whereas the Flexner Report fired broadsides in public print like this: "This school is one of the worst in the country"; or again, "At the date of visit, there was no outfit at all"; or again, "The clinical facilities are wholly inadequate"; or "This school is a wholly helpless affair." Your Grading Committee tells us what you already know about your own school and little about other schools.

Moreover, the Grading Committee has engaged itself with statistics and charts when what it needed was to hire a battery of artillery. The committee makes much of its fact finding and then naïvely acknowledges that the essential facts were already available, for example, in the Rockefeller Report of 1923. Indeed the facts are transparently visible to everyone who has eyes to see. Why collect statistics that there are too many nurses? When the average graduate has only five days' employment per month, as in Minneapolis, we do not need statistics, we need something done about it.

Among the forty or more recommendations of the Grading Committee there is no hint that the first necessity is to take the profit out of nursing education, no recognition that this is the vital point in the whole issue.

In spite of its enthusiasm and hard work, I don't think the Grading Committee will be highly effective, and when the hand is played out not even ten spot value is likely to be realized.

Then there is the card called propaganda, the creation or education of public opinion. Of course the efforts of the Grading Committee are partly educational and are good as far as they go. I believe, indeed, that the general public is gradually getting a truer view of the situation in nursing. Some public interest has been shown, for example, in the paragraphs in *Time* for September 14. But the facts have been known to hospital superintendents, many of whom are nurses, for a long time. These superintendents are the real dictators of the schools, yet nothing has been done. My guess is that nothing will be done until the situation is forced.

This condition had its parallel in medical education. From 1890 on medical educators and the Association of American Medical Colleges knew the weakness of medical education, and many individuals worked hard to improve conditions both in their own colleges and in the country at large, but the roots of a vicious system could only be blasted out when the organized medical profession and the Carnegie Foundation exploded the dynamite of the Flexner Report.

The organized medical profession could explode and did explode that dynamite. Can the nurses do the same thing? I am afraid not. Their lady fingers are not accustomed to handling explosives. Furthermore, I am afraid that some doctors, not understanding the situation, may keep the nurses' hands tied. I give educational efforts about a six spot value.

But the nurses do control the teaching in the sense that they are the only teachers available. If they were able to present a united front, if they could bring themselves to declare a moratorium in nursing education, if they would say "no more apprentices for so many years," as the carpenters or bricklayers or locomotive engineers would say in similar circumstances, and if they would hold to such decisions—no scabs in their group—then something would happen and it would happen quickly.

But you say "Oh! we couldn't do that! There are the patients to be cared for. That is our glorious tradition. That is our first duty."

Dear misguided ladies! Do you not know that if you issued an ultimatum that after January 1 there should be no pupil nurses in any hospital anywhere, the patients in those hospitals would be just as well cared for as they are now? Do you not know that the philanthropist, the patient, the taxpayer and the owner would find the money you have been saving for them? Do you not know that the nurse students would be promptly replaced by graduates who are idle at the present time? If you do not know these things then you do not know the tremendous strength that is yours if you saw fit to use it and could act solidly and as a unit in fighting this battle.

Will Nurses Heed This Plea?

Can you not envisage yourselves as the Gandhis of nursing education, the liberators of a tradition-bound profession? Can you not feel the terrific public appeal of such a slogan as "No more nursing students until the profit is taken out of nursing education!"? And the interesting fact is that not one of you would go to jail. Not one superintendent of nurses, not one supervisor would lose her job. The hospitals would have to keep you, for

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your primary work is caring for the sick and not teaching. All that this program needs is courage.

There is talk of cutting down the production of cotton, of wheat, of various crops of which there is an unmanageable surplus. Why not cut down the crop of nurses? I'll tell you why. Because the profit in nurse farming is not in selling the crop, but in growing the crop. We leave the crop to sell itself, if it can. Why not have more consideration for the crop? Why not plow in nine rows out of ten, or stop production altogether for a while?

Trade Union Methods Suggested

If hospital superintendents had to sell their nurse graduates to get their profit—that is, find each one a job—these superintendents would have run to the Farm Board long before this. They would want the Government to take the whole crop off their hands. As it is the nurse teachers are the only ones who have power to limit nurse production, and the nursing profession, not the hospital superintendents, has an interest in so doing.

But you are timid, you are not solidly organized, you are poor. You say you cannot use trade union methods, forgetting that the doctors, the lawyers, even the college professors, have unions though called by other names. On your power to control production through withholding nurse teaching I give you about a five spot rating compared with the ace that the American Medical Association played when it declared itself in favor of two years' premedical college work and formulated the minimum standards for an acceptable medical school. The ace took the trick, forced the game. The five spot—well, it could grow to be an ace if you so willed. If you so willed!

The nurses control, I assume, the standards of admission to their own societies. I assume that these bodies could decree that after a certain date no one could secure membership who had been trained in a hospital that made money on its nurse students. I assume that they could declare that no one might retain membership who accepted employment in such a hospital. But I know they won't do any of these things, and I give a four spot value to all that organized nursing will do in a positive way to improve present conditions.

The nurses control or seem to control the boards of nursing examiners whose fiat turns the graduate nurse into a registered nurse. These boards could enforce, or it seems as if they could enforce, rules regarding recognition of acceptable schools. They could refuse to recognize graduates of schools that make money on nursing education, schools that exploit their pupil nurses. The boards of medical examiners define acceptable medical schools and refuse to examine graduates of nonacceptable schools. Could the boards of nursing examiners do the same? Possibly, but my guess is that they could not present a united front for such an end and that, if they did, they would meet opposition from certain medical men, honestly doubtful, most of them, as to the value of nursing education. However, this card has possibilities and I value state board influences as a nine spot, at most, in the hand the nurses have to play.

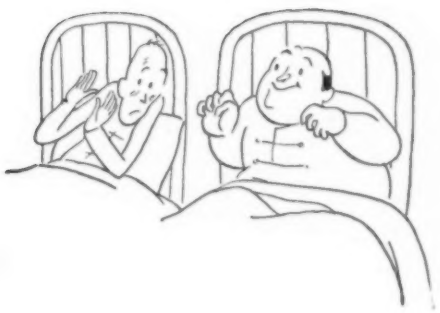
These are your cards. What can you expect in your partner's hand? The interesting thing is that you don't know just now what partners you may have, but there are intriguing possibilities.

There is the American Medical Association. I understand that the American Medical Association is not participating in the Grading Committee's work. Still, I cannot believe that the association will keep completely out of a game in which so much is at stake for its age-long ally, organized nursing. If I were you I would put on my prettiest smile and try to vamp the American Medical Association on the crucial point of squeezing the profit out of nursing education. The doctors are honorable and intelligent. They have only to recall the days of profit making medical colleges and the educational havoc that resulted. They are eminently just when they understand a situation. Just now they are inclined to condone the present system because it has existed so long. Who knows, if they get a true view of the conditions, but they may be brought into the game with all their strong cards, such as approval of hospitals for internships? Think of the rattling of dry bones that would be heard if the Council on Medical Education and Hospitals would announce that after 1935 there would be no approval for internship in a hospital that made a profit on its student nurses!

The A. H. A. as a Partner

There is the American Hospital Association, composed largely of those terrifying dictators of nursing education, the hospital superintendents. But of course they are not really terrifying. Rather they are your friends. They, like the rest —doctors, nurses, the public—have been victims of tradition. The superintendents are not entirely free any more than you are entirely free. They are responsible to trustees and political influences. They may not relish the prospect of having to raise from none too prolific sources the money needed as a substitute for what the pupil nurses earn. But if they had to raise it they could and would do so. Perhaps the American Hospital Association might be induced to play such a tremendously potent card as: "No membership for hospitals that make a profit on nursing education."

The American College of Surgeons possesses



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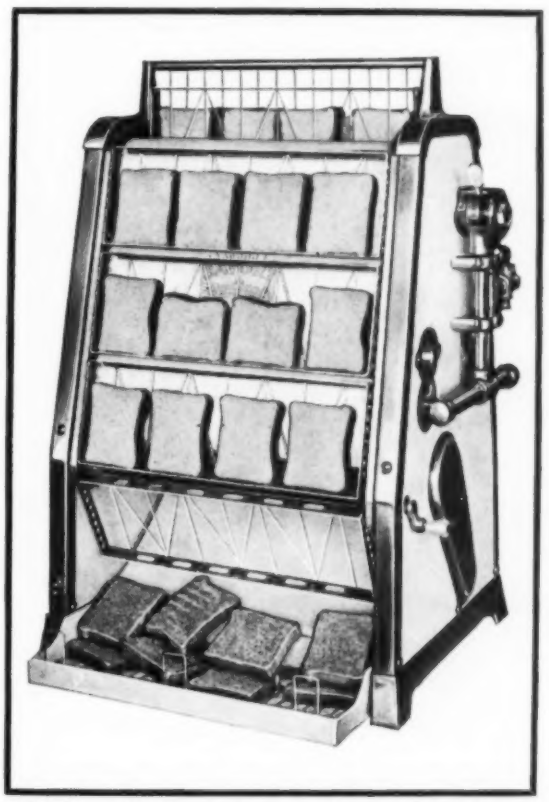

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enormous power. Can the college be induced to pronounce the vital principle, "No profit in nursing education," as one of its criteria for approval of hospitals? What a card if they will only play it! Even the bluff of playing it would win the game.

These, as I see it, are the cards you hold and the cards your partner may hold. Now what cards have your opponents? Yes, they have a strong hand.

First, there is tradition. Nursing education began as an adjunct, an ancillary function of the hospital. (I looked up that handsome word ancillary and found that it is derived from the Latin word for female slave.) The nurse students have always served the hospitals free. The tradition of free service will be a hard one to break.

Can Nurses Stop Giving Free Service?

I should like to live a hundred years more for just two reasons: first, to see whether the nurses can break the tradition of free service—in other words, whether they can collect from the philanthropist, the taxpayer, the owner, and the patient the money that rightly belongs to them for their education. Second, I should like to live long enough to see whether the doctors can break the equally vicious tradition that they must take care of the poor for nothing. The public, the taxpayers, should be responsible for the sick poor and should pay the doctor, and the nurse also, for services to the poor, just as they pay for their beds, food, fuel and shelter.

A second card your opponents hold is vested interest. They have lived on it for many years. It will be hard for them to give it up. They will have to raise in some other way the money they have "saved" on their training schools. The philanthropist, the owner, the taxpayer and the patient will not voluntarily regurgitate. Will you use an emetic strong enough? I have shown you one, but I doubt whether you will administer it. You will wait, I presume, for a doctor's prescription. If so, you will wait.

A third card in your opponents' hand is the psychology of the position you occupy in the hierarchy of healing. Your position is exactly described by the word ancillary. Individually you are accustomed to take orders. Your initiative is limited. Your rank and file look to the medical profession rather than to organized nursing for canons of action. I am afraid that this card will cancel the value of all the trumps you hold.

However, the game is on, put on a poker face and play your best, and I for one shall watch with much interest the fall of the cards. You deserve to win, and I hope you do win.

This address is intentionally dogmatic and provocative. I am aware that things I have said are not true in particular instances and situations, but I have purposely avoided the particular and the exception. On the other hand, as you all see, there is nothing new in this address—no new facts, no new thought unless it be the analysis of who actually profits by the earnings of the nursing students. The newness, if any, is in emphasis. Of all the difficulties and shortcomings of nursing education I claim that the basic, causal factor is the profit in it. I claim also that practically all criticisms of nursing have the same cause. I presume to make a diagnosis. The nurses as expert therapists should take upon themselves the responsibility for treatment. Others may assist but, as I see it, the nurses must be responsible for it, must do most of the work.

I have put forward as a leading thesis the claim that the trouble with nursing education is the profit hospitals make out of it. As I see it this is responsible for the number of schools, far in excess of the need; for the overproduction of nurses; for the poor quality of many students of nursing and for the many incompetent graduates; for the unsatisfactory curriculum adjusted to hospital needs and low grade students and not to the educational requirements of superior women; for long and health destroying hours of duty; for a condition of affairs in which, in many instances, one cannot distinguish between the R.N. and the practical, because one is as good or as bad as the other.

Let Nurses Control Their Schools

Take the profit out of nursing education. Give the nurses control of their own education. Under such circumstances they could determine how many schools they need and make their contracts with suitable hospitals willing to cooperate in nursing education. If a hospital will pay its cooperating school all that the students earn in service, that hospital will be no worse off and of course no better off than its neighbor hospital that has no school and hires graduate nurses. The incentive for multiplying schools will be gone. The proper number and quality of nurses will be trained and these, when graduated, will find employment. The whole situation will become sane and dignified. With sanity and dignity will come in time, I sincerely believe, as they did to medical education, the endowment and public support needed to raise nursing education to the level of the other professions as far as culture, scientific background and intellectual average are concerned. Take the profit out of nursing education and all else to be desired will come into it. This is my thesis, my diagnosis.[1]

[1]Read at the meeting of the Minnesota State Registered Nurses' Association, September 24, 1931, and the Illinois State Nurses' Association, Chicago, October 15, 1931.

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FOOD SERVICE AND EQUIPMENT

A Series by KATHERINE MITCHELL THOMA, Dietitian, AND HERMAN SMITH, M.D.,
Superintendent, Michael Reese Hospital, Chicago

Paving the Way for a Satisfactory Food Service

THIS is the first of a series of articles written by a hospital dietitian and a hospital administrator to discuss problems of joint interest presented by the dietary department. In order that the reader may realize the viewpoint and preference of the authors, it should be understood that it is their opinion that the dietitian should have complete responsibility for food, including every phase from the purchasing of food supplies to the delivery of trays to the patient's bedside.

The expression "dietary department" is a variable term. It varies from a situation in which the dietary department is in charge of special diets for patients and the instruction of nurses to one in which the dietary department is in complete charge of the food problem in all its phases. The dietary department of the first instance is not in reality a dietary department.

Who Shall Be in Charge?

It is obvious that a hospital or any other organization feeding large or small groups must place some one person in charge of this work. There are, in the main, two types of persons who are equipped for this job: (1) persons with hotel experience, (2) dietitians. In analyzing the qualifications of the two types for work in the hospital, we are brought face to face with the fact that although hotel persons can handle the preparation and distribution of food for well people, they have had no experience in the preparation and distribution of food for sick people. Assuming that the hotel trained person can become familiar with the general diet for hospital patients, he has had no experience with special diets. Reasoning in this wise, it seems to us that a hospital needs a dietitian even if a hotel person is employed for part of the food work.

Some places employ both a hotel person and a dietitian for what we consider is one person's job. In most cases it is our belief that a dietitian, if she has had proper training and is given appropriate responsibility, can handle the job much better than a hotel trained person. We believe this is true because of the contacts she has made and the experience she has gained in working with various medical, nursing and other professional groups in the hospital. In any organization, the employment of two persons for practically the same job, brings about divided responsibilities with twilight zones of responsibility and sets up a rather weakened organization fabric. Hospitals are no exception to this general rule. It has been the experience of most hospitals that a competent dietitian in charge of food will be more pliable and adaptable in meeting changing situations than the hotel person who is accustomed to a more rigid régime and who has dealt almost entirely with male personnel in hotel kitchens and dining rooms. The assumption of this attitude by the competent dietitian promotes a smoothly running organization which in most instances brings about greater possibility for the satisfaction of the patients.

The dietitian to be in charge of food should and must be given actual responsibility sufficient to discharge the job. Partial responsibility usually results in disorder.

Administrator Must Be Interested

The introduction of dietitians into many hospitals was an innovation. Some administrators, not willing to face a changed situation squarely, did not give the dietitian enough responsibility to do the job properly. It is probably true that in most of these organizations, the food job was quite unsatisfactory. It is likewise true that these administrators blamed the condition, which was really of their own making, on the dietitian. We are neither gullible nor prejudiced enough to believe that every dietitian if given proper authority can deliver a

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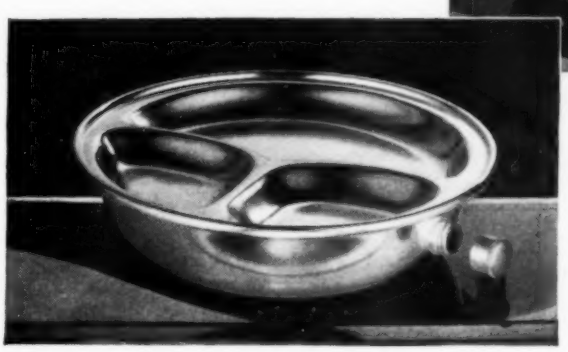

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Watts Hospital
Haywood, Calif.
Haywood Central Hospital
La Jolla, Calif.
Scripps Metabolic Clinic
Los Angeles, Calif.
Kaspar Cohn Hospital
St. John's Hospital
Milwaukee, Ore.
Portland Open Air Sanatorium
Morristown, N. J.
All Souls Hospital
New York, N. Y.
French Hospital
Hunts Point Hospital
Neurological Institute
Oakland, Calif.
East Oakland Hospital
Providence Hospital
Pasadena, Calif.
Pasadena Hospital
Phoenix, Ariz.
St. Joseph's Hospital
Pittsburgh, Pa.
Allegheny General Hospital
Portland, Ore.
Dr. R. C. Coffee Clinic & Hospital
St. Vincent's Hospital
Riverton, Wash.
Riverton Sanatorium
Sacramento, Calif.
Mater Misericordiae Hospital
Sutter Hospital
San Francisco, Calif.
Children's Hospital
Mount Zion Hospital
St. Francis Hospital
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St. Joseph's Hospital
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satisfactory food job. Dietitians vary in their capacities like all other human beings. We reiterate our belief, however, that with proper authority, competent dietitians will deliver better food jobs more economically than persons with any other type of training.

It should be stated that administrators cannot expect to turn over complete responsibility for food to even competent dietitians, and without any further interest in the subject expect a complete and satisfactory job to be accomplished. When one stops to consider the proportion of the hospital expenses represented by food supplies and salaries, one realizes the importance of the food department from the fiscal standpoint. It is therefore essential for the administrator to keep a continuous interest in this department and by frequent set conferences to keep in touch with all aspects of the work. At these conferences detailed analysis and free and open discussion of costs, practices and trends should take place.

The Dietitian's Responsibilities

At the outset it would appear to be the duty of the administrator to outline to the dietitian his own and the community's conception of what the hospital expects to give its various types of clientele. This should be an expression of opinion by the administrator to the dietitian, and not in any way a flat edict. The dietitian should be expected to discuss and debate these general policies and point out improvements if she can.

It is vital to the success of any organization that the heads of all departments feel that they have definite responsibilities for the workings of their departments. To develop this sense of responsibility in the dietitian, the superintendent should see to it that all department heads and members of the staff are thrown into direct contact with her to discuss their common problems rather than for the superintendent to pass on to the dietitian their complaints and comments. The dietitian, just as any other department head or any other person, will win the confidence of her colleagues over a period of years only if she is really fit to enjoy such confidence. Carrying on this line of reasoning it appears self-evident that the dietitian should be at least in complete charge of the preparation and distribution of food.

Whether the dietitian should actually purchase food is a point to be decided by each institution according to its needs. If a purchasing agent is employed to purchase other supplies there seems little reason for him not to purchase food supplies. If, however, there is no purchasing agent, it seems logical for the dietitian either with or without the help of the superintendent to purchase food.

It should be emphasized that where a purchasing agent buys food the dietitian should be responsible for its quality and should work in close cooperation with the purchasing agent. Many economies will result from this type of cooperation. First, food of poor quality will be rejected before it is prepared and before all possibility of its return is lost. Second, the dietitian's knowledge of prices will result in more economically planned menus. Third, her knowledge of prices should result in greater variety in the menus. Fourth, immediate changes can be made in the menus to utilize unforseen bargains.

Since the administrator will or should hold the dietitian responsible for the per capita cost of food it seems evident that the dietitian would have to be responsible for the preparation and distribution of food from the time it arrives in the hospital until it is actually delivered to the patient's bedside. Being in charge of this distribution and preparation automatically presupposes that the dietitian must be in complete charge of all employees having to do with the preparation and certainly with the distribution of the food to the local diet kitchens.

Whether the food is brought from the local diet kitchen to the patients by nurses or employees of the dietary department is somewhat immaterial. In most organizations it has been found to be most practical for nurses to deliver trays from these points to the bedside. These nurses would, of course, be under the jurisdiction of the superintendent of nurses. Insofar as the preparing of trays and their delivery to the patients is concerned, the nurses should be directly responsible to the dietitian. If necessary it should be the duty of the administrator to convince the superintendent of nurses of the reasonableness of this arrangement.

Requisites of a Good Organization

As the dietitian is responsible for the service of food to the patients, opportunity must be given her for direct and continuous contacts with them.

A good organization plan with the dietitian in complete control of food will not in itself make a successful dietary department. The dietitian in charge must have, in addition to a complete technical knowledge, a disposition that is not only equitable but somewhat judicial. She must realize that there will always be complaints about food, some of them justified and some of them unjustified, but she should never take the attitude that her department, right or wrong, is always right. She must meet the administrator, other department heads and staff members, half way, and be perfectly willing in a calm impersonal way to discuss the merits of the particular problem involved. It

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Heinz Rice Flakes have a "corrective vegetable effect" much like that of spinach, prunes or lettuce. That's because we've added pure cereal-cellulose to these crisp, golden flakes.

When moisture is absorbed by this cereal-cellulose its bulk greatly increases—providing a form of roughage that is very smooth—very mild and gentle—very effective!

Heinz Rice Flakes are the result of eight years of careful experimenting and food research, in collaboration with the Mellon Institute. We did not want to create "just another" cereal. It was our ambition to perfect one which could win approval both for its deliciousness and fine corrective quality. And we did not put it on the market until a series of carefully supervised institutional tests had thoroughly demonstrated our product's value.

Many dietitians consider Heinz Rice Flakes an excellent aid in correcting constipation—and a particularly pleasant and enjoyable one. We hope that you will try these flakes, too. For we believe you'll find them especially helpful.

For the first week, we recommend that Heinz Rice Flakes be served twice daily (at breakfast and for dessert at lunch or dinner). After that, one serving a day should be enough to maintain normal action.

Our representative has more information to give you. He will also explain how you can make a thorough trial of Heinz Rice Flakes at no cost to you. Mail the coupon. He'll call at your convenience.

HEINZ RICE FLAKES

THE ONLY READY-TO-SERVE CEREAL THAT CONTAINS PURE CEREAL-CELLULOSE

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Dept. MH11, Pittsburgh, Pa.

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H. J. HEINZ COMPANY
MAKERS OF THE "57 VARIETIES"

is useless for her to blame for the difficulty inadequacy of help, press of work and other matters over which she thinks she has no control, but which really are under her control. If in her organization plan, she does not have enough help, it is her duty to point out to the administrator the difficulties that may occur. After she has done this the responsibility is the administrator's. The administrator should provide the dietetic department with sufficient competent help and equipment. In order to do this, it is a prerequisite that the administrator should be familiar with the intimate details of the department. If the administrator is not completely familiar with the details of each department his decisions will be based more on his preconceived prejudices or on the momentary state of his health rather than on the actual facts. Both the dietitian and the administrator should be constantly alert to the needs of the patients and the demands of the community for food service.

In subsequent articles, detailed functions of the dietary department will be outlined.

Should the Dietitian Be Required to Purchase Food?

It would be folly indeed to attempt to generalize on the subject of whether a dietitian or a male steward is better equipped to purchase food. Exceptions prove the rule in this matter just as is true in many other cases. There are to be found in the field dietitians who are especially well trained and who are successful as buyers. There are others who are not at all able to compete with a steward in purchasing food economically for the institutions they serve.

In an institution of any size, it seems that there is a sufficient amount of work for the average dietitian and her staff which concerns itself with the preparation, transportation and serving of food. Under such conditions, the dietitian usually requests the purchase of raw materials and is responsible for preparing palatable dishes therefrom. To be sure, unless a thorough cooperative spirit exists between these persons, loss of time and money is likely to occur. There can be no efficiency when misunderstandings arise because of a difference of opinion as to the extent of any one individual's responsibility. It should be the inherent right of the dietitian to decide what raw materials are needed and having decided it, the purchasing agent is in duty bound to obtain the various types and grades of materials requested. It appears unfair to require the dietitian to go to early morning market and at the same time to expect her to carry on her work efficiently during the long day that follows.

In small hospitals perhaps the most effective method is to require the dietitian to purchase, as well as to prepare food. The answer to this question, however, must be found in a consideration of the size of the particular hospital and the adequacy of its dietetic staff. Moreover, in many institutions that do not have a purchasing agent, it seems more efficient for a well trained dietitian to be required to purchase food than to expect a busy superintendent to assume this responsibility. At any rate, if the superintendent purchases food materials, he should do so only with the thorough cooperation and aid of his dietitian.

What Sixty-Three British Hospitals Think of Waking Hours

In view of the recent controversy on the subject, a memorandum on the hours of waking of patients, compiled by the recently issued Hospitals Year Book of Great Britain from information supplied by sixty-three large general hospitals, is of interest.

In one of these hospitals, with 208 beds, work in the wards begins at 4 a.m., and the patients receive their breakfast at 6. The honorary medical staff arrives and the operation list begins at 9. Asked for an opinion on the wisdom of avoiding the disturbance of patients before 7 a.m., this hospital replies, "So long as the patients get a proper amount of sleep the actual waking hour is not of great importance."

Of the other hospitals, two wake their patients at 4:30 a.m., twenty-nine wake them at 5, eleven at 5:30, thirteen at 6, one at 6:15, one at 6:30, one at 6:45 and two at 7.

The interval between the beginning of work and breakfast ranges from no time at all to two and one-half hours, and that between the waking of the patients and the arrival of the honorary medical staff for their daily rounds, between three and seven hours.

Opinions on the wisdom of leaving patients to sleep until 7 a.m. vary widely. Some hold that it would be against their interests, since the majority are accustomed to early rising, go to sleep at 8 p.m., and, being ill, welcome early attention. Others agree that the change would be of benefit, but hold that it would not be possible without changing the hours of arrival of the doctors and increasing the nursing staff.

Of the sixty-three hospitals, sixteen definitely favor 7 a.m., as the waking hour.

A sensible coffee for the PHYSICIAN

DID you ever think that Kellogg's Kaffee Hag Coffee has one distinctive quality that makes it particularly desirable for you? You can drink it at any hour without danger of its interfering with your sleep.

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HOSPITAL EQUIPMENT AND OPERATION

Conducted by C. W. MUNGER, M.D.
Director, Grasslands Hospital, Valhalla, N. Y.

Supplying Heat, Light and Power to a Mental Hospital

By J. ALLEN JACKSON, M.D.
Superintendent, and
SUEL C. BAILEY
Mechanical Director, Danville State Hospital, Danville, Pa.

TO MEET the need for an adequate supply of heat, light and power at the Danville State Hospital, Danville, Pa., the state department of welfare has constructed and equipped a power plant that assures an uninterrupted supply of water, heat, light and power at all times. Such a supply is a necessity in the care of the mentally ill.

The power plant is strictly modern and, while not elaborate in engineering features, it is designed to give reliable and continuous service at a cost that is consistent with other elements of cost entering into the total cost of production.

This machinery supplies power needs in a mental hospital caring for several thousand patients.

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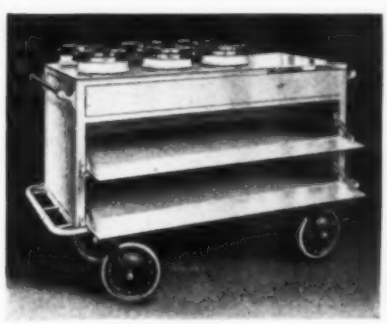

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Whether your patients "Eat to live" or "Live to eat" it is necessary that their food be served in the most palatable and tempting manner.

A Wocher conveyor solves the problem and assures service in the same appetizing condition in which it left the kitchen.

Send your "Food Troubles" to us—tell us how far food must be transported and whether it comes from a central kitchen or diet kitchens on each floor.

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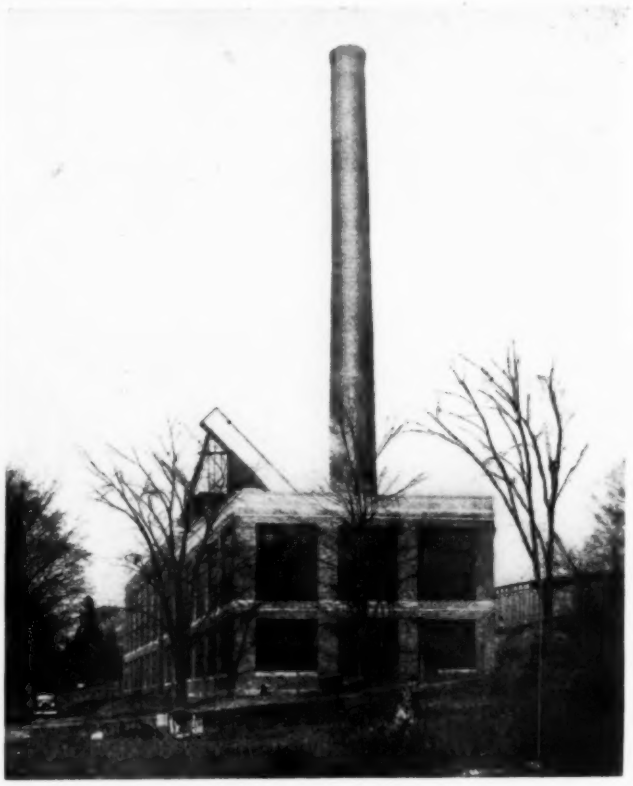
The building, which is 50 feet wide, 260 feet long and 58 feet high from basement to roof, is constructed of red brick, concrete and steel. It is lighted by large windows on all sides and is attractive in its architectural design. The windows are manually controlled. The building has three large doors, large enough to admit trucks and equipment and is served by one 225-foot radial stack that has a 15-foot bottom diameter and a 11-foot top diameter. The building foundation was carried 15 feet below the ground floor to permit the installation of ash and coal handling equipment, force



This power plant is strictly modern though not elaborate.

draft fans, a vacuum pump, an air compressor and a water softening plant. The main operating floor for both boilers and engines is on the ground level.

The present installation includes four 500 h.p. water tube boilers, each equipped with 11 by 14-foot chain grate stokers and flat, suspended arches. The stokers have worm gears and are motor driven. They have a manually controlled, auxiliary steam engine drive, which is rarely used. The boilers are controlled by a balanced draft system, the performance of which is commendable. Other boiler equipment are boiler meters, which indicate, record and integrate the flow of steam and indicate and record the flue gas temperature, the air flow and the steam pressure. Multipointer draft gauges indicate the draft in inches of water in the various wind boxes, the furnace and the uptake compartments. Feed water regulators, pump governors and soot blowers are used.

Forced draft is supplied by two squirrel cage

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The answer is to be found in twenty-five years of specialization by men who know their business. Manufacturing flush valves *exclusively,* the Sloan organization has acquired a knowledge of flush valve requirements and a breadth of flush valve experience which are unique and unapproachable.

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fans, one of which is driven by a 75 h.p. slip ring induction motor and the other by a 75 h.p. steam turbine. These fans are in the basement and are connected to a common air duct that supplies all the boilers. Only one is operated at a time. The boilers are under complete electrical, automatic control and are equipped with such operating platforms, runways, ladders and stairways as are required by the Department of Labor and Industry. Steam is generated at 150-pound pressure and is regularly conveyed to the plant equipment through a 12-inch extra heavy header or through a 10-inch auxiliary header, each forming a complete system.

A 4-inch high pressure line is carried overhead across the railroad to the hospital water works. The main steam lines are in an 8 by 8 by 1,000-foot concrete underground tunnel, connecting the power plant to the main hospital building as follows: one 10-inch high pressure main; one 8-inch high pressure auxiliary main; one 12-inch low pressure main for exhaust steam; one 8-inch hot water return; one 4-inch auxiliary water line for boilers. All primary electric lines are in a 4-inch tile conduit beneath the floor of the tunnel.

Steam is carried on through the main building and beyond, overhead and underground, a distance of more than 3,500 feet, to serve every building and unit.

How Coal Is Delivered and Handled

Anthracite, barley size, coal is burned. It is delivered on the siding adjacent to the boiler room, where it is dumped into a concrete hopper. There it is picked up and handled by the following coal and ash handling equipment: One 1½-cubic yard coal skip hoist delivers the coal to a steel bunker of 1,000-ton capacity, suspended over the firing aisle; from there it is taken by a one-ton, electrically driven, floor operated, weighing coal lorry and deposited in the stoker hoppers. The coal skip is entirely automatic. The ashes are automatically dumped from the stokers into an 18-hour capacity, steel, brick lined ash hopper and are manually dumped into hand cars and run over a tramway to an ash skip hoist, which deposits them into a 12 by 18 by 36-foot ash hopper on the outside of the building. The hopper is high enough to permit an auto truck to drive under and to load by operating an ash gate.

There is also a concrete coal storage bin of 3,000-ton capacity on the outside. The bin is served by an all electric, four-motored crane, having a 60-foot span. A 1-cubic yard clam shell is used to deliver the stored coal to the concrete hopper that supplies the coal skip hoist. Two railroad tracks traverse this storage bin.

The engine room, which is 50 by 100 feet, is a part of the main building and is separated from it only by a brick partition. It is equipped as follows:

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Here is a new piece of Hospital equipment that will match the finest surroundings—brilliant, sturdy, and easy to keep clean. A fitting companion to the highest quality instruments and utensils.

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Three 375-k.v.a., 3-phase, 60-cycle, 2,300-v., 80 per cent power factor, electric generators, each directly connected to a 22 by 24-inch, 466 h.p. center crank, horizontal commercial type engine with belted exciters.

One 35-k.w., 2,300-v. single phase horizontal generator, directly connected to a horizontal, non-condensing steam turbine for emergency lighting only.

Two 14 by 8 by 18-inch outside packed reciprocating boiler feed pumps.

One vacuum pump, driven by a 30 h.p. induction motor.

One 16 by 20 by 24-inch vacuum pump. These vacuum pumps discharge into an 8,000-gallon capacity, steel condensate tank located approximately 30 feet above the boiler room floor.

One 5½ by 4½-inch horizontal air compressor, directly connected to a 20 h.p. induction motor.

One 100,000-pound per hour, open, V-notch, feed water heater equipped with V-notch, strip chart, indicating, recording and integrating meter.

One 2,000-gallon per hour, lime and soda, hot process water softener for make-up only.

One 10-ton, 45-foot span, manually operated, bridge crane.

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The main switchboard is constructed of slate. It is equipped with oil circuit breakers and automatic overload switches. Meters and a synchroscope, a voltage regulator and a strip chart recording k.w.h. meter, measure the current that is generated.

The emergency unit is entirely automatic, being controlled by a solenoid valve. The prevailing current holds the valve closed. When this current fails the valve automatically opens, setting in motion the generator which supplies current at 2,300 v. for a complete and independent lighting system throughout the entire institution. The current is stepped down at the various transformer stations to 110 volts.

On the mechanical instrument board are: electrically operated flow meters for steam distribution; a recording thermometer for treated water; a recording thermometer and a pressure indicator for feed water; a recording and indicating exhaust steam pressure, and a recording and indicating line pressure on steam mains.

Other plant equipment includes: stop and non-return valves on the boilers; outside spring safety valves; liquid leveling gauges on the boilers that indicate the water level where it can be conveniently observed by the operator. High pressure steam traps are used throughout. Low pressure traps are also used.

The plant is noncondensing and maintains approximately a 2-pound back pressure, which is

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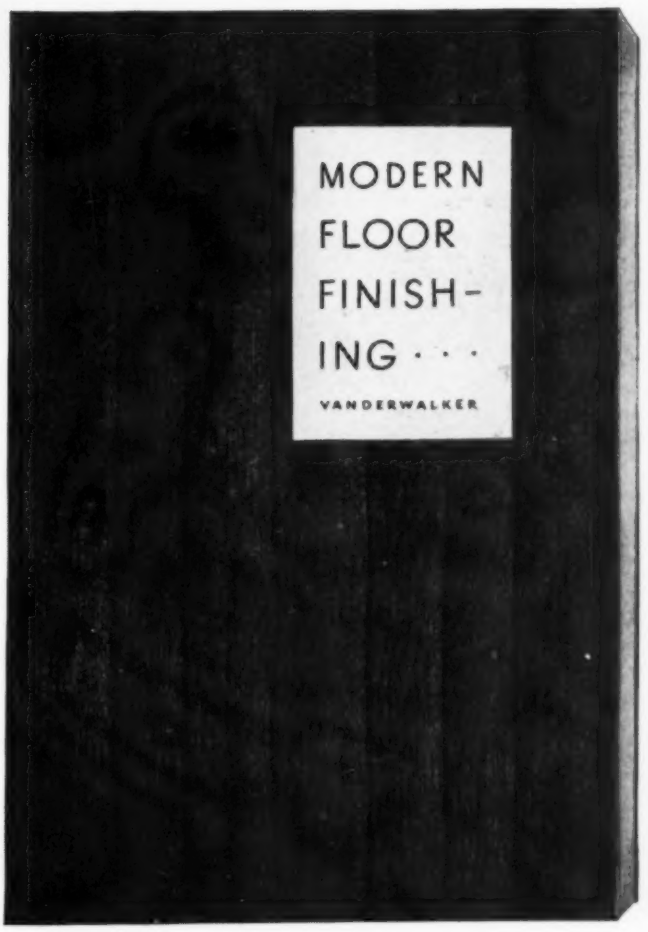

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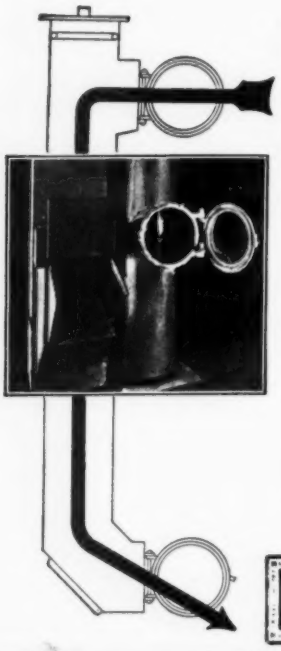

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used for heating the building. The deficiency is made up through pressure reducing valves near the point of distribution.

All hot water in the power plant and in the main hospital building is heated by exhaust steam.

Prior to the installation of the new plant, the hospital was served by three boiler plants and one small fire tube boiler supplying steam for the slaughter house and farm group. Two 126 h.p. water tube, hand fired boilers supplied steam for the water purification plant. Four 320 h.p. water tube, hand fired boilers and three 110 k.w., d.c. generators supplied heat and electricity to the main hospital buildings. These plants were widely separated, inadequate and had reached the end of their usefulness.

The new plant was installed in October, 1928, and has been in continuous operation since that time. It has not only met the expectations of the administration in its performance but is giving assurance that it will no longer be hampered by the lack of heat, light and power in carrying out the expansion program of the department of welfare for caring for 3,000 patients. It is proving a worth while investment from an economical point of view.

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A saving of 42 per cent was effected in the cost of fuel for 1930 over the last year the old plant operated, and an addition of approximately 250-bed capacity was heated, with an additional 800,000 k.w.h. consumed in 1930.

The saving was effected in two ways: a more economical fuel consumption and the fact that a cheaper grade of coal could be burned. At the old plant, No. 7 buckwheat size anthracite was used at a cost of $4.50 a ton delivered. In the new plant, barley size is used at a cost of $2.76 a ton delivered. An average of 9.21 pounds of steam per pound of coal was made during the year 1930. The B.t.u. content of the samples of coal analyzed during the year averaged about 12,000 per pound. The average temperature of the boiler feed water was approximately 208 degrees Fahrenheit. Some difficulty was experienced during the drought of 1930 because of a high concentration of the boiler feed water. Otherwise, good results have been had from the water softening plant. After six months' operation, there is a coat of scale on the boilers about the thickness of a thin coat of paint.

The cost of labor for operating the plant is about 15 per cent less than the cost of operating the largest of the old plants. This cost will not be increased any even if the output is increased by 200 per cent.

The average guaranteed steam consumption of the generators was 37.07 pounds of steam per k.w. hour. The average listed consumption was 34.98 pounds of steam per k.w. hour.

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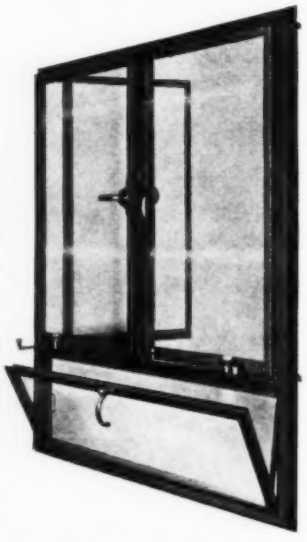
Fenestra

meets every window need of the hospital



In Clinics, Operating Rooms, Sun Porches, Wards, Private Rooms, Fenestra Steel Windows are serving the special needs of various departments in dozens of modern hospital buildings—needs ranging from maximum daylight and fresh air ventilation to silent, finger-touch operation. Made by America's oldest and largest steel window manufacturer, Fenestra windows present many distinctive features.

To those who have the responsibility of choosing hospital building materials, Fenestra literature will bring helpful information. Demonstrations made on request—no obligation. Call the local Fenestra office.

DETROIT STEEL PRODUCTS COMPANY
2288 East Grand Boulevard Detroit, Michigan
Factories: Detroit, Mich., and Oakland, Calif.

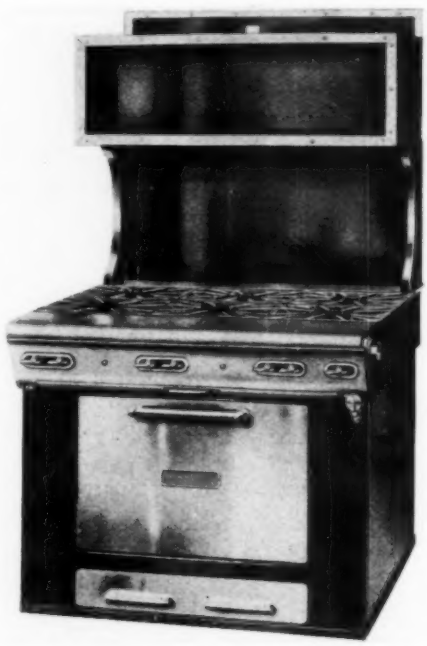
A daily record is kept of all plant activities and the results, including the units in operation and the time; of the amount of coal consumed in pounds; of the pounds of steam generated and of the temperature of feed water, as well as the k.w.h. consumed in the various departments.

In conclusion, it may be pointed out that the plant is well designed and efficiently equipped. Every precaution was taken to ensure reliability. Certain other money saving refinements might have been introduced, but there is always the question of whether the investment would have been justifiable in a plant of this type.

Two Ranges for Hospitals Are Perfected

Two new gas ranges have recently been marketed designed to meet conditions where a large amount of top cooking is done but only a moderate amount of oven cooking, or where oven cooking is done in a separate section of the kitchen.

One of the ranges has two rings, each ring being heated by a three-ring aerated burner. By using all three rings each burner is quickly brought up to a high temperature, then two rings can be turned off and the top kept hot economically by one ring. When only one burner is used the rest of the top may be used for auxiliary purposes. The other range has six burners that are lighted by two top burner lighters.



This new range has a specially insulated oven and oven heat control. These features are optional.

These ranges can be supplied without ovens if desired. The ranges have many improvements. Hinges and springs are concealed. This improves the appearance and makes it easier to keep the ranges in a clean, sanitary condition, a feature

NOW...

you can treat

CONVALESCENT-ITIS!

THE SYMPTOMS of "convalescent-itis" are: grouchiness, ill-temper, irritation, restlessness, indignation. To visitors and members of the family it proves contagious. And the sad effects are suffered—not by the patient, but by the hospital! This strange, wide-spread malady has been successfully treated in many great hospitals.

Treatment consists of the usual care—cheerfulness—appetizing food—quiet—and sheets and pillow cases by Pequot.

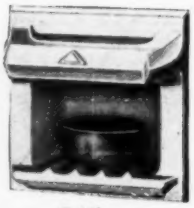
This last item is somewhat indirect, to be sure, but surprisingly effective. The smoother, softer feel of Pequots (and they *have* a better finish—you can actually feel it yourself) soothes tactile irritations of the hypersensitive epidermis. This results in sounder sleep—less chafing—less pure cussedness. "Convalescent-itis" is not *cured*, of course, but it's allayed. Even the nurses feel better. They save their nerves, save shoe leather.

And the hospital saves money! For Pequot sheets are not alone noted for their "feel," but also for the way they *wear*. The low first cost of Pequot, divided by its extra long wear, equals economy. You're assured of that economy whenever you specify Pequot Sheets and Pillow Cases. So your remedy for "convalescent-itis" costs less than nothing! Pequot Mills, Salem, Mass. Parker, Wilder & Co., selling agents, New York, Boston, Chicago, San Francisco.

PEQUOT SHEETS AND PILLOW CASES

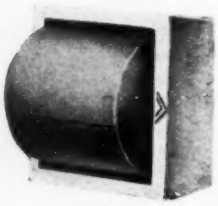
THE MOST POPULAR SHEETS AND PILLOW CASES IN AMERICA

Fairfacts Fixtures



F-152
COMBINATION SOAP HOLDER AND GRIP

Vitreous China Bathroom Accessories cemented into the walls are sanitary, durable, economical. With permanent high fire colors they are unusually attractive and restful.



F-2
PAPER HOLDER

Fairfacts Fixtures are already used in hundreds of hospitals, and are now being installed in the New York Hospital — Cornell Medical Center. Our long experience, unsurpassed facilities and unquestioned reputation are at your service. If consulted, it will be a pleasure to give you the benefit of our experience. Ask for catalog.

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THORNER SILVER

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Reduce replacements by standardizing on Thorner Silverware—lasts a lifetime —and standard "open stock" pattern enables you to add pieces whenever desired.

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THORNER BROTHERS
135 FIFTH AVENUE NEW YORK

Costs Less Per Year of Service

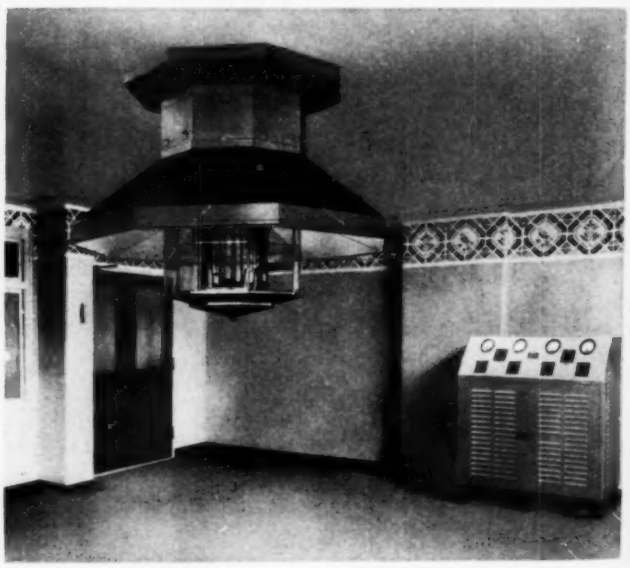
much appreciated by hospitals. Other important features are the insulated oven, which keeps the heat in the oven and out of the kitchen and oven heat control which maintains any oven heat desired, assuring uniform results without watching. These features are optional.

Both ranges may be had in noncorrosive metal and with nickel or chromium trim. They are 40 inches wide by 40¾ inches deep and have ovens 24 inches wide by 28 inches deep by 15 inches high.

Carbon Arc Equipment That Provides Sunshine for the Group

Carbon arc equipment that meets the requirements of physicians and hospitals for group irradiation has recently been perfected and is now in use in many hospitals and sanatoriums. The equipment is used in sanatoriums as a source of artificial sunlight and in hospitals to increase resistance in preoperative cases and to hasten convalescence in cases in which operations have been performed.

The photograph shows a typical installation of a four-arc unit with its remote control cabinet.



The cabinet and the lamp constitute the complete equipment.

Canopy, reflectors, exhaust fan and control cabinet are supplied with each unit, together with an installation drawing and instructions for the installation, operation and care of the unit. The control cabinet houses transformers, regulators, contactors, meters and operating switches. Reflectors are chromium plated to assure the efficient reflection of the ultraviolet radiation. The canopy that is over the lamp is octagonal in form and of attractive design.